Reasons for Substance Use: A Comparative Study of Alcohol Use in Tribals and Non-tribals

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ABSTRACT

Background: Consumption of alcohol has been attributed to different reasons by consumers. Attitude and knowledge about the substance and addiction can be influenced by the cultural background of the individual. The tribal population, where alcohol intake is culturally accepted, can have different beliefs and attributes causing one to take alcohol. This study attempts to examine the reasons for alcohol intake and the belief about addiction and their effect on the severity of addiction in people with a different ethnic background. Materials and Methods: The study was conducted at a Psychiatric institute with a cross-sectional design. The study population included patients hailing from the Jharkhand state, twenty each, belonging to tribal and non-tribal communities. Patients fulfilling the ICD 10 diagnostic criteria of mental and behavioral disorders due to the alcohol dependence syndrome, with active dependence, were taken, excluding those having any comorbidity or complications. The subjects were assessed with specially designed Sociodemographic-Clinical Performa, modified version of Reasons for Substance Use scale, Addiction Belief scale, and the Alcohol Dependence scale. Statistical Analysis and Results: A significantly high number of tribals cited reasons associated with social enhancement and coping with distressing emotions rather than individual enhancement, as a reason for consuming alcohol. Addiction was severe in those consuming alcohol to cope with distressing emotions. Belief in the free-will model was noted to be stronger across the cultures, without any correlation with the reason for intake. This cross-sectional study design, which was based on patients, cannot be easily generalized to the community. Conclusion: Societal acceptance and pressure as well as high emotional problems appear to be the major etiology leading to higher prevalence of substance dependence in tribals. Primary prevention should be planned to fit the needs of the ethnics.

Key words: Alcohol dependence, belief of addiction, free-will, reasons for alcohol use, tribes

INTRODUCTION

The state of Jharkhand was carved out of Bihar with a forethought of uplifting the tribals, the major dwellers of the region. Health is one of the primary necessary amenities in any society. The needs of the society have to be understood and fulfilled, for building a stronger health system. Alcohol abuse has been identified as one of the major areas of concern in public health in the state.[1] Developing countries like India experience more problems with alcohol abuse than developed countries, despite equal amounts of drinking.[2] Prevalence of nutritional and infectious diseases, social and economic deprivation, hazardous and accident-prone environment, and lack of organized systems, are the reasons indicated in literature. Given the higher prevalence of alcohol intake in tribals,[1] and the prevailing deprived socioeconomic and environmental conditions and poor health conditions, the problems

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related to alcohol are indispensable. Various studies in India and western countries have found the prevalence of alcohol use to be higher in the tribal population.[3-6] A relatively larger proportion of tribals than non-tribals, admitted in our institute for substance dependence, were found to be dependent on alcohol compared to other substances.[7] The reason for the same is to be determined.

Understanding various dynamic factors involved in substance abuse can aid in formulating effective strategies in preventing and treating them. Numerous causes can influence the onset and continuation of alcohol use. The subjective reasons that are sorted for alcohol intake, influences the interventions. Alcohol intake being a culturally embedded behavior, social enrolment could be the reason for its use. It may also be due to the ingrained low self-esteem, which could be surmounted by the disinhibitory effects of alcohol. The reasons may shift to overcoming the negative emotions that may be arising out of chronic abuse.

The reasons attributed by the patients and the interventions would be based on the belief and attitude of the patient with regard to the problem related to alcohol. Patients believing in the free-will model are more amenable for change.[8] The cultural influences in the attitude of tribals and non-tribals could have forestalling implications. The severity of dependence may be a direct consequence of the attitude and belief of the person toward alcohol intake.

The study was conducted with the aim of evaluating the influence of ethnic background on the subjective perspectives of alcohol and their ramifications regarding the problems related to alcohol. We hypothesized that the reasons attributed by the patients for the intake of alcohol and their beliefs about addiction varied in different cultures. These differences could influence their severity of dependence on alcohol.

**MATERIALS AND METHODS**

The study was conducted in the Central Institute of Psychiatry, Ranchi. It had a cross-sectional design. The study population included twenty patients each, belonging to tribal and non-tribal communities, hailing from Jharkhand state. The patients were admitted to the de-addiction center of the institute and stayed there. They were selected for the study by the purposive sampling method. Patients fulfilling the ICD-10 DCR[9] diagnostic criteria of mental and behavioral disorder, due to the alcohol dependence syndrome, with active dependence, were chosen for the study. Patients having any comorbid substance dependence or psychiatric illness or any other complications were excluded.

Details of the sociodemographic and clinical variables were designed in a specially designed clinical Performa. A modified version of the Reasons for Substance Use Scale (ReSUS)[10] was used to assess the reasons for taking alcohol, as reported by the patients. It was a 35-item questionnaire rated with the five-point Likert scale. It constituted three subscales, namely, Coping with distressing emotions, Social enhancement / intoxication, and Individual enhancement. The ‘Reasons for substance use scale’ was found to have good reliability and validity in assessing the reasons for substance use. It also had good internal consistency among all the three subscales.

Severity of alcohol intake was assessed using the Alcohol Dependence Scale (ADS).[11] The ADS is a widely used scale in basic research studies, where a quantitative index is required regarding the severity of alcohol dependence. It has 25 items, which cover alcohol withdrawal symptoms, impaired control over drinking, awareness of a compulsion to drink, increased tolerance to alcohol, and salience of drink-seeking behavior. It has 25 items with dichotomous, three-choice and four-choice items. The total score ranges from 0 – 47 with the higher value representing greater dependence.

Evaluation of belief over addiction was done with an Addiction Belief Scale.[12] An 18-item Addiction Belief Scale (ABS) was developed to assess the strength of belief in the disease versus free-will model of addiction (alpha=0.91). It is a standardized scale containing 18 items, rated on a five-point Likert scale. Nine items measure belief in the disease model and nine items assess belief in the free-will model.

**RESULTS**

The present study had a cross-sectional design, with 40 patients having dependence on alcohol. Out of these, 20 were tribals and 20 were non-tribals. Both the groups had a similar mean age, around 35 years, with onset of alcohol intake around 21 years prior [Table 1]. No significant difference was noted in duration of dependence ($P=0.19$), incubation for dependence ($P=0.62$), and money spent on alcohol ($P=1.68$), among the two groups.

| Table 1: Sociodemographic variables in different ethnicities |
|----------------------------------------------------------|
| Variables | Tribals (mean±SD) | Non-tribals (mean±SD) | t value | Df | P    |
| Age (years) | 35.95±12.04 | 35.25±7.86 | 0.218 | 38 | 0.83 |
| Education (years) | 7.6±5.36 | 13.15±2.52 | 4.19 | 38 | <0.01 |
| Onset (years) | 21.3±7.29 | 21.8±6.49 | 0.23 | 38 | 0.82 |
| Duration of dependence | 8.15±6.85 | 5.9±3.67 | 1.29 | 38 | 0.19 |
| Incubation (years) | 6.45±6.96 | 7.55±7.2 | 0.5 | 38 | 0.62 |
| Money spent (/Day) | 118±101.5 | 365±648.9 | 1.68 | 38 | 0.1 |
Non-tribals had a significantly higher educational status ($P<0.01$) compared to tribals, with $13.15\pm2.52$ and $7.6\pm5.36$ years of education, respectively. A significantly higher percentage of tribal patients (40%) were from the lower socioeconomic status compared to the non-tribals (5%) [Table 2]. A significant difference was noted in the habitat, with 25% of the tribals hailing from a rural background compared to nil in the non-tribals. So also, 30% of the tribals were involved in agricultural activities, whereas, the chief occupation of the non-tribals was private business (55%). A huge number of tribal patients remained single (50%) in comparison to non-tribals (15%). Thirty percent of the tribals were followers of Christianity, while all the patients in non-tribals were followers of the Hindu religion.

Table 3 shows the comparison of scores of subscales for the reason for substance use scale, addiction belief scale, and alcohol dependence scale. A significantly higher reason for consuming alcohol was for coping with distressing emotions ($P=0.015$), and social enhancement ($P=0.015$) was cited by tribals rather than non-tribals. The addiction belief scale was comparable in both the groups, with belief in favor of the free-will model (mean=38 and 38.25) rather than the disease model (mean=8 and 8.5), in both the groups. Severity of dependence was significantly higher ($P=0.025$) in the tribals (13.65±4.52) than in the non-tribals (10.45±4.11).

On comparing the scores [Table 4] on each item on the reasons for substance use scale, five reasons for coping with emotions, four factors for social enhancement, and a single factor for individual enhancement were attributed to be reasons for taking alcohol by the tribals, rather than by non-tribals. Table 5 shows the Pearson’s correlation of clinical variables and individual subscales of different RESUS assessed in the study population. Significant negative correlations were found between the onset of alcohol intake and intake for social enhancement ($-0.389$); and between incubation for dependence and individual enhancement ($-0.365$). A significant positive correlation was found between the duration of dependence and intake for coping with distressing emotions (0.467), as also for individual enhancement (0.436). A significant positive correlation (0.326) was also noted between the alcohol dependence scale and intake for coping with distressing emotions.

**DISCUSSION**

The study findings point toward clinically comparable groups. Patients from both the tribal and non-tribal groups had a similar age of onset of substance intake and duration of intake in a dependence pattern, and duration of incubation from the first intake to intake in a dependence pattern. However, the groups differed on various sociodemographic characteristics. Non-tribals were better educated, from urban areas, involved in business or a professional job, and were from the middle economic status; whereas, tribals were less educated, many of them were from rural areas, most were involved in agricultural activities, with a higher proportion of patients coming from the lower economic status. This reflects the prevailing deprived condition of the tribals in the state.[13] The finding also reflects the poorer

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**Table 2: Sociodemographic characteristics of different ethnic groups**

| Variable          | Tribal n=20 (%) | Non-tribal n=10 (%) | Total n=40 (%) | Chi-square |
|-------------------|-----------------|----------------------|----------------|------------|
| Marriage          |                 |                      |                | $\chi^2=5.584 \text{ df}=1, p=0.04$ |
| Single            | 10 (50)         | 3 (15)               | 13 (32.5)      |            |
| Married           | 10 (50)         | 17 (85)              | 27 (67.5)      |            |
| Religion          |                 |                      |                | $\chi^2=7.059 \text{ df}=1 P=0.02$ |
| Hindu             | 14 (70)         | 20 (100)             | 4 (10)         |            |
| Christian         | 6 (30)          | 0 (0)                | 6 (15)         |            |
| Occupation        |                 |                      |                | $\chi^2=10.367 \text{ df}=4 P=0.03$ |
| Farmer            | 6 (30)          | 1 (5)                | 7 (17.5)       |            |
| Professional      | 5 (25)          | 6 (30)               | 11 (27.5)      |            |
| Business          | 3 (15)          | 11 (55)              | 14 (35)        |            |
| Student           | 4 (20)          | 1 (5)                | 5 (12.5)       |            |
| Other             | 2 (10)          | 1 (5)                | 3 (7.5)        |            |
| Habitat           |                 |                      |                | $\chi^2=5.714 \text{ df}=1 P=0.047$ |
| Urban             | 15 (75)         | 20 (100)             | 35 (87.5)      |            |
| Rural             | 5 (25)          | 0 (0)                | 5 (12.5)       |            |
| Socioeconomic status |             |                      |                | $\chi^2=7.025 \text{ df}=1 P=0.008$ |
| Lower             | 8 (40)          | 1 (5)                | 9 (22.5)       |            |
| Middle            | 12 (60)         | 19 (95)              | 31 (77.5)      |            |
| Family history    |                 |                      |                | $\chi^2=0.921 \text{ df}=1 P=0.52$ |
| Present           | 13 (85)         | 10 (50)              | 23 (57.5)      |            |
| Absent            | 7 (15)          | 10 (50)              | 17 (42.5)      |            |
utilization of services by the patients belonging to rural areas in relation to alcohol dependence, with only 12.5% of the patients belonging to rural areas. This is in contrast to 90% of the population of the state living in rural areas.

In spite of having similar age and clinical profile of onset and duration, the problems related to alcohol were more severe in the tribals, when measured on the alcohol dependence scale. Educational and socioeconomic deprivation could be the cause for such a variation. It has also been hypothesized that the tolerance of alcohol is poorer in primitive groups due to pharmacogenetic and metabolic differences, biologically inherited in the tribals.

Cultural factors like traditional acceptance may enhance the number of people involved in drinking. Even if the biologically prone individuals are proportionately spread across such cultures, increased number of people exposed to alcohol intake may increase the number of people getting into pathological drinking. Social enhancement as a reason for the intake of alcohol rather than individual enhancement, as noted in this study, stand as a support to this latter explanation. Reasons like consuming alcohol to have good time with friends, when feeling peer pressure, or to identify oneself in a group are significantly cited more by the tribal patients than non-tribals. Thus, clearly, the social influence to get addicted to alcohol is more among tribals.

Use of alcohol to cope with the distressing emotions was also found to be reported more often by the tribals than non-tribals. The persisting psychological problems related to low self-esteem in tribals is often noted in the literature; historical oppression and discrimination have had their after effects on their well-being. Use of alcohol when one feels bad about oneself, when one thinks about the bad happenings in the past, when one feels suspicious or discriminated, are the factors significantly quoted more by the tribals. Sleep disturbances have also been reported more often by tribals as a reason for alcohol intake. It can be noted in the correlational study that patients with a long duration of dependence and severe dependence, reported taking alcohol, to cope with distressing emotions. These distressing emotions, as the factors show, also include sleep disturbances. Thus, the distressing emotions may even represent withdrawal effects of alcohol, with improvement in alcohol intake. This might again show the lower tolerability of tribals for alcohol, as they have reported coping with distressing emotions as a reason for using alcohol. However, the biological or the disease model of addiction that explains this, has been poorly held by both the groups. Both tribal and non-

### Table 3: Comparison of study variables among tribals and non-tribals

| Variables                      | Tribals (mean±SD) | Non-tribals (mean±SD) | t value | df | P   |
|-------------------------------|-------------------|-----------------------|---------|----|-----|
| Reasons for substance use     |                   |                       |         |    |     |
| Coping with emotions          | 43.2±11.42        | 34.45±10.33           | 2.54    | 38 | 0.015 |
| Social enhancement            | 26.1±5.35         | 21.3±6.48             | 2.55    | 38 | 0.015 |
| Individual enhancement        | 15.35±5.72        | 12.05±4.52            | 2.02    | 38 | 0.05 |
| Addiction belief scale        |                   |                       |         |    |     |
| Disease model                 | 8±4.7             | 8.5±5.87              | 0.3     | 38 | 0.77 |
| Free-will model               | 38±5.48           | 28.25±5.45            | 0.15    | 38 | 0.89 |
| Alcohol dependence scale      | 13.65±4.52        | 10.45±4.11            | 2.34    | 38 | 0.025 |

### Table 4: Comparative item scores of reasons for substance use in study groups

| Variables                                  | Tribals (mean±SD) | Non-tribals (mean±SD) | t value | df | P   |
|--------------------------------------------|-------------------|-----------------------|---------|----|-----|
| Coping with distressing emotions           |                   |                       |         |    |     |
| When I feel ashamed or bad about myself    | 2.30±1.302        | 1.25±0.786            | 3.09    | 38 | 0.004 |
| When I am thinking about bad things that have happened in the past | 2.45±1.468     | 1.60±0.995            | 2.14    | 38 | 0.039 |
| When I am feeling suspicious or paranoid   | 1.70±1.218        | 1.05±0.224            | 2.35    | 38 | 0.024 |
| When I have trouble sleeping              | 3.2000±1.76516    | 1.9500±1.53811        | 2.39    | 38 | 0.022 |
| When I feel I have been discriminated against | 2.5500±1.43178  | 1.6000±1.14248        | 2.32    | 38 | 0.026 |
| Social enhancement                         |                   |                       |         |    |     |
| When I am with friends and we want to have a good time | 3.2000±1.23969 | 2.2500±1.51744        | 2.17    | 38 | 0.036 |
| When I think about how good it tastes      | 2.2500±1.20852    | 1.1500±0.67082        | 3.56    | 38 | 0.001 |
| When I want to fit in with other people    | 2.3000±1.38031    | 1.3500±0.87509        | 2.6     | 38 | 0.013 |
| When I feel under pressure from others to use drugs / drink alcohol | 2.8000±1.23969 | 1.8000±1.32188        | 2.47    | 38 | 0.018 |
| Individual enhancement                     |                   |                       |         |    |     |
| When I want to stay awake or be more alert | 2.7000±1.38031    | 1.8000±1.32188        | 2.11    | 38 | 0.042 |

### Table 5: Correlation of reasons for substance use with clinical variables in the study population

| Variables                      | Onset | Duration | Incubation | Alcohol dependence scale |
|-------------------------------|-------|----------|------------|--------------------------|
| Coping with distressing emotions | 0.467” | 0.389”   | 0.326”     | 0.365”                   |
| Social enhancement            | -     | 0.436”   | -          |                          |

** Significant at P=0.01 level (Two-tailed); *Significant at P=0.05 (Two-tailed)
tribal patients have believed in the free-will model, and think that relying on their will power and learning new ways to cope with life will lead them to overcome the dependence. This also meant a stronger belief in change, which might favor the psychological interventions, like motivational enhancement therapy; but it also meant a poorer reliance on drugs, which might lead to poor compliance toward medicines.

It was also noted in the study that the younger the age of onset more was the use of alcohol for social enhancement, under social and peer pressure. However, with increase in the duration of intake, the patients learnt to use it for avoiding distressing emotions and to get individual enhancement. In those taking alcohol for individual enhancement, the time interval from the first intake to alcohol use in a dependence pattern was grossly reduced.

CONCLUSION

These findings have a direct implication on the prevention and treatment of alcohol dependence in the Indian context in general, and the Jharkhand state in particular. A comprehensive upbringing of tribals in the social, economic, and educational aspects would show direct implications in the primary prevention of problems related to alcohol. Improving the psychological well-being of tribals through various measures might decrease the alcohol intake in the dependence pattern. Educating the people about alcohol, its consequences, and treatment facilities, focusing especially on the rural areas is the need of the hour. Educating the patients on the physiological aspects of alcohol dependence might help them to have a better control over the drinking problem behavior, by differentiating the symptoms from craving, intoxication, and withdrawal symptoms. Discussing the treatment options and providing proper psychological interventions would be more acceptable than emphasizing on pharmacological therapies. Further studies need to be promoted for finding the biological differences across the ethnic groups, which might promote the understanding of substance dependence. Studies with a larger sample size and involving community samples would be desirable.

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