

Cumulative Impact of Alcohol Consumption on Social Life and Health among Tribal Communities of Coastal Andhra, Andhra Pradesh, India

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Abstract:

Aim: To estimate the cumulative impact of alcohol consumption on the social life, health status, and family wellbeing of tribal populations in coastal Andhra Pradesh.

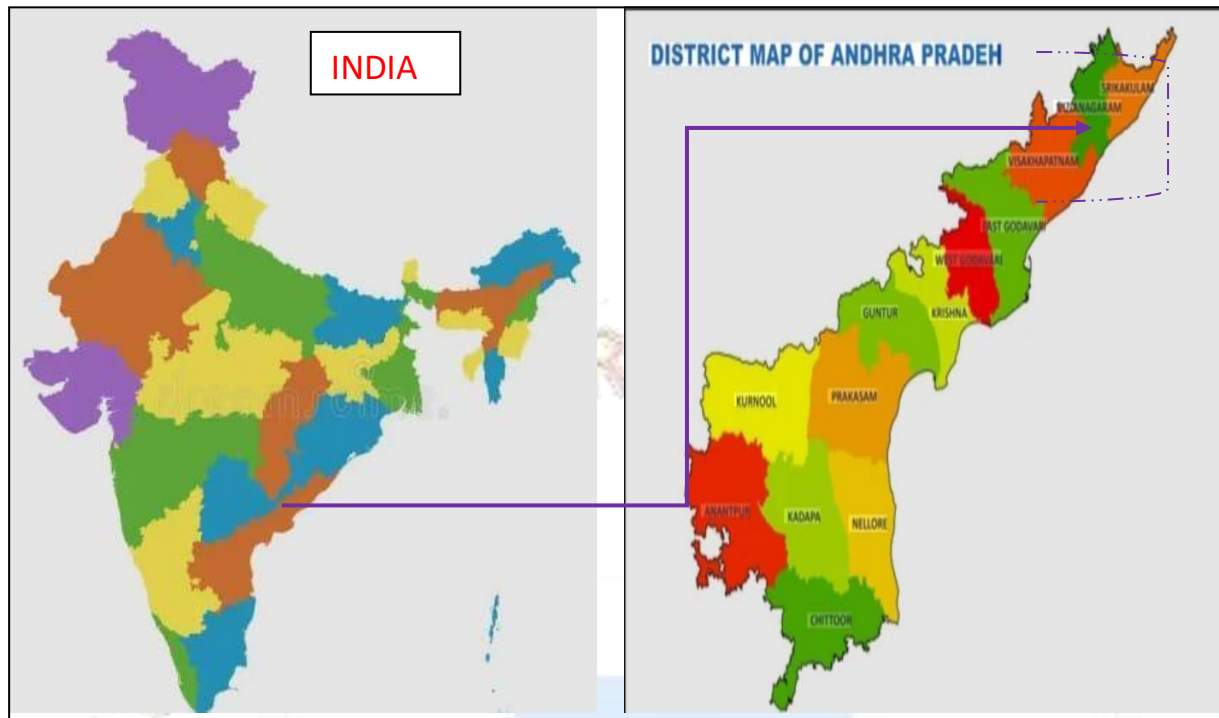
Methods: Demographic and socio-economic data were collected from tribal communities in coastal Andhra Pradesh to assess social life, community health, and family-related social disturbances associated with alcohol consumption. Data were obtained through attendance records and a self-designed, non-validated, pre-prepared questionnaire using both written and oral methods. The collected data were analyzed systematically.

Results: The study included 978 tribal participants, comprising both literate and illiterate individuals. Among the respondents, 73% were aged between 18 and 45 years. Of the total sample, 56% belonged to remote areas, 30% to rural areas, and the remaining to semi-urban areas. Marital status showed that 62% were married. Educational status revealed that 56% were literate and 43% illiterate. According to socio-economic status, 63% belonged to the lower class, 28% to the middle class, and 9% to the upper class. In terms of social category, 85% were Scheduled Tribes, 11% Scheduled Castes, and 4% others. Occupational status indicated that among literates, 48% were students and 19% were employed. Among illiterates, 51% were laborers, 26% were engaged in agriculture, and 23% were self-employed. Monthly average income ranged between INR 5,000 and 10,000 for 75% of participants. Alcohol consumption history showed that 85% initiated alcohol use before the age of 30 years. Daily alcohol consumption was reported by 63% of participants, while 37% consumed alcohol weekly (1–3 times per week). Indian-made foreign liquor was consumed by 63%, whereas 37% consumed locally made alcohol. The average monthly expenditure on alcohol was INR 3,250. Common health problems included liver infections and stomach-related disorders. Alcohol abuse had significant social impacts: 50% reported family disturbances, 39% reported abusive behavior toward family members, 38% reported deprivation of children's education, 32% reported accidents and police-related issues, and 5% reported suicide attempts. Sources of expenditure for alcohol included borrowing money from others (71%), and selling land or household assets (9%).

Conclusion:

The majority of tribal people were addicted to alcohol with limited awareness of health consequences and low literacy levels. Alcohol consumption caused serious social disturbances within families and resulted in severe financial losses, ultimately leading to internal family collapse.

Key words: Socio-economic factor, Alcohol users, Alcohol related disorders, Social impact, Families disturb.



1. Introduction

Alcohol consumption is one of the major leading causes of premature deaths and disabilities globally. Alcohol use is common in most cultures and across different regions of the world.¹ The harmful consequences of alcohol consumption are well documented, particularly in tribal areas as well as in plain regions. Alcohol consumption causes not only health-related problems but also significant social and economic issues within communities.

At the individual level, and according to the World Health Organization (WHO), alcohol consumption is causally related to liver diseases, cardiovascular disorders, various gastrointestinal problems, kidney infections, and psychiatric conditions. Alcohol consumption adversely affects family bonding through its psychological impact on growing children and other relatives, economic instability, domestic violence, and reduced social status. Today, society bears a heavy burden due to alcohol consumption, including alcohol-related diseases, family disintegration, road traffic injuries, loss of productivity, and social stigma.²⁻¹⁸

Worldwide, approximately two billion people consume alcohol, and nearly one-third of them (about 77.2 million) are affected by one or more diagnosable alcohol use disorders.³ Of all global deaths, about 3.2% are attributed to alcohol consumption, indicating that nearly one-fourth to one-third of the male population in Southeast Asia consumes alcohol, with increasing trends among women as well.⁴⁻⁵ In India, it is estimated that 63 million people are dependent alcohol users, accounting for 17.4% of the population.⁵ Alcohol consumption is responsible for nearly 60 different types of disorders and problems, as reported by the World Health Organization (WHO, 2000). The WHO (2002) report also identified alcohol as a risk factor for under nutrition, unsafe sexual behavior, and hypertension.

Alcohol consumption is further associated with increased crime, work absenteeism, property damage, loss of productivity, social disputes, and psychological and emotional abuse of children and spouses. However, there is insufficient published literature on alcohol consumption and its impact in tribal areas. Therefore, it is essential to understand the social effects of alcohol consumption and the problems it imposes on tribal communities so that all societal stakeholders can initiate preventive actions.

2. Methods and Materials

a) Study Type

This study was conducted using focus group discussions (FGDs) and a pre-prepared questionnaire through written, oral, and observational survey methods. The study included participants from remote, rural, semi-urban (town), and college-based settings and followed a cross-sectional study design.

b) Study Area

The study was conducted in tribal areas of the Eastern Ghats in coastal Andhra Pradesh, covering the districts of Srikakulam, Vizianagaram, and Visakhapatnam. The hilly terrain, with an average elevation of 2,000–2,200 feet, is intersected by various tributaries and rivers. These areas are predominantly inhabited by tribal populations, with limited presence of other communities.

The terrain is difficult to access, resulting in poor transportation and limited healthcare facilities. Overall health status, literacy levels, cultural development, and socioeconomic conditions across all age groups are considerably poorer compared to plain regions. Educational institutions and employment opportunities are poorly developed. Participants were considered permanent tribal residents based on government ration card identification.

The region comprises numerous tribal hamlets, many accessible only via muddy tracks and unpaved roads. Each hamlet consists of approximately 20–40 to 60–80 households. Mobile network connectivity is poor or unavailable, requiring residents to travel long distances to reach motorable roads for access to healthcare and other services. The predominant occupations include farming and migrant labor.

c) Study Samples

The study included literate and illiterate adolescents and adults, including students, aged between 18 and 55 years. Data collection was conducted from December 2024 to December 2025. Participation was voluntary, and only willing individuals were included.

d) Sample Size

Sample size was calculated using the formula:

$$N = \frac{P(1-P) \times Z^2}{d^2}$$

with a prevalence of 27.25% based on a related study conducted in central India,¹⁵ a 95% confidence interval, 5% allowable error, 10% non-response rate, and a design effect of 2. The calculated sample size was 978, which was rounded to 980.

e) Discussion Guide

The focus group discussion guide and cross-sectional survey were developed based on issues identified in previous literature.^{2, 6, 7} The key themes included:

- Excessive alcohol use in the community
- Types of alcohol consumed
- Sources of alcohol availability
- Age of initiation of alcohol use
- Consequences of persistent alcohol use
- Impact on family and community
- Community identification of harmful drinking patterns

- Solutionsforproblem drinking
- Preventionmethodsamongyouth
- Communityexpectationsforreducingharmful alcoholuse

f) SamplingCollection

Focus group discussions and in-depth interviews were conducted using a socio-contextual model of alcohol use, along with random cross-sectional sampling. A pre-prepared questionnaire was administered through written and oral methods. Informed consent was obtained from all participants.

Data collected included socio-demographic characteristics (area type, age, sex, education, marital status, caste, and socioeconomic status), educational and occupational details, monthly income, family history of alcohol use, alcohol consumption patterns (duration, frequency, and monthly expenditure), social consequences (job loss, family disturbance, police issues, physical fights, abuse, children deprived of education), occupational issues (work absenteeism, job loss), economic burden (healthcare expenses, education costs, household maintenance), and health hazards (liver, stomach, kidney, physical and mental health problems). Mean alcohol expenditure was calculated for each individual.

3. Ethical Issues

The study protocol was approved by the Board of Education, Government Degree College, Baruva. The purpose and importance of the study were explained to all participants, and the study findings were shared with the community.

4. Result

The study was conducted from December 2024 to 31 December 2025 to assess alcohol consumption and its effects on health and society. A total of 900 participants initially participated; data from 12 participants were unclear and excluded. Finally, data from 978 male and female participants were included for analysis.

a) Age

Age was verified using "Identity card" identification. Among participants, 25% were below 25 years, 60% were aged 25–50 years, and 16% were above 50 years. Literate participants from plain and semi-urban areas constituted 37% of the total literate population (56%), while 39% of illiterate participants were from remote and rural areas out of the total illiterate population (54%).

b) Education

Educational data were collected from degree colleges (Paderu, Araku, Chintapalli, Seethampeta), revenue offices, villages, and plain areas. Among participants, 59% had not completed a degree, 24% had completed a degree, and 17% were intermediate (+2) dropouts.

c) Occupation

Most participants engaged in seasonal agriculture dependent on rainfall. During off-season periods, many migrated to neighboring states such as Telangana, Tamil Nadu, Karnataka, and other parts of India for work, either through contractors or self-employment. Migration typically lasted 5–6 months, after which participants returned to their native villages.

Overall, 78% were migrant laborers, while 22% had permanent local livelihoods. Among migrants, 57% were women and 89% were men. Lower-class (91%) and middle-class (72%) participants primarily worked as laborers and agricultural workers, while upper-class participants (97%) were engaged in business or employment. Scheduled Caste participants constituted 10%, and other castes 5% (**Table 1**).

Among males (706) and females (272), alcohol consumption prevalence was 77% and 28%, respectively, while partial consumption was reported by 23% of males and 72% of females (**Figure 1**).

Local-made alcohol was consumed by 33% of participants, while 67% consumed Indian-made or foreign liquor. Local alcohol consumption was higher in remote and rural areas, whereas 83% of plain-area participants consumed Indian-made or foreign alcohol. The average monthly expenditure on alcohol ranged from INR 3,000 to 3,500 (**Figure 2**).

Among literate alcohol consumers, 43% were below 25 years of age, and 57% were above 25 years. Among illiterate participants, 51% were laborers, while 49% were engaged in agriculture, business, or streetvending. Monthly income was below INR 10,000 for 79% of participants, while 21% earned above INR 11,000.

Alcohol initiation occurred before the age of 20 years in 34% of participants, between 20–30 years in 49%, and above 30 years in 15% (**Table 2**). Almost all participants reported a family history of alcohol consumption.

Most alcohol consumers suffered from at least one health problem. The most commonly identified conditions were liver infections [$P=<0.0001$ (HS)] and stomach-related disorders such as gastritis and ulcers, followed by diarrhea, hematemesis, and physical and mental discomfort (**Table 3**).

Among participants, 52% did not have bank savings accounts, and only 48% had accounts. Insurance coverage was present in only 32%. Alcohol consumption was widely accepted during social occasions, festivals, and ceremonies. Over 60% consumed alcohol in commercial settings, while 45% consumed it at home. More than 50% reported using alcohol to relieve pain or induce sleep, while 48% cited habituation and peer pressure as reasons for consumption. Nearly 25% of families experienced financial disturbance due to alcohol use.

Healthcare expenses were met through self-employment income (26%), borrowing from relatives or friends (71%), savings (34%), sale of land (4%), and sale of personal belongings (5%) (**Figure 3**).

Alcohol consumption caused multiple social problems: 50% reported family disturbances, 39% reported abuse of family members, 20% physical fights, 19% accidents, 38% deprivation of children's education, 13% police-related issues, 10% job loss due to absenteeism or misconduct, and 5% suicidal tendencies (**Figure-4**).

Table-1:Demographicandsocio-economiccharacteristicsofstudyparticipants:

S.no	Characteristics	Frequency	%
1	Type of Area		
	Remote Area	446	45.60
	Rural Area	394	40.29
	Semi Urban Area	138	14.11
2	Age Group		
	>25 years	242	24.74
	25-35 years	214	21.88
	35-45 years	264	26.99
	45-55 years	258	26.38
3	Based on Education		
	Literates	546	55.83
	Illiterates	432	44.17

4	Marital Status		
	Married	712	72.80
	Un Married	266	27.20
5	Basedon Sex		
	Male	706	72.19
	Female	272	27.81
6	Socio-economic Status		
	UpperClass	84	8.59
	Middle Class	276	28.22
	LowerClass	618	63.19
7	Basedon CastReservation		
	Schedule Tribal	834	85.28
	ScheduleCast	106	10.84
	Others	38	3.89

Table:2:NumericalstudybasedontheEducation/MonthlyEconomy/Familyhistory:

s.no	Characteristics	Frequency	%	Male	Female
1	Education				
	Literates				
	Intermediate-18years	84	15.38	74	10
	Degree-19-22years	152	27.84	124	18
	Afterdegree-23-30years	206	37.73	154	52
	Employers->30	104	19.05	85	19
	Total	546		437	109
	Illiterates				
	Workers	220	50.93	128	92
	Agricultural	112	25.93	71	41
	business	64	14.81	46	18
	Streetvendors	36	8.33	24	12
	Total	432		269	163
2	Monthlyincome				
	<5000Rupees	420	42.94	262	158
	5000-10000Rupees	350	35.79	246	194
	11000-25000Rupees	194	19.84	184	10
	>25000Rupees	14	1.43	14	0
3	Familyhistoryofalcohol				
	Father	428	43.76	296	132
	Mother	20	2.04	12	8
	Brother	210	21.47	174	36
	wife	24	2.45	20	4
	Sons	72	7.36	66	6
	Husband	224	22.90	138	86
4	Ageof Starting alcohol				
	>15years	98	10.02	82	16
	15-29years	236	24.13	166	70

20-30years	497	50.82	353	144
>30years	147	15.03	105	42

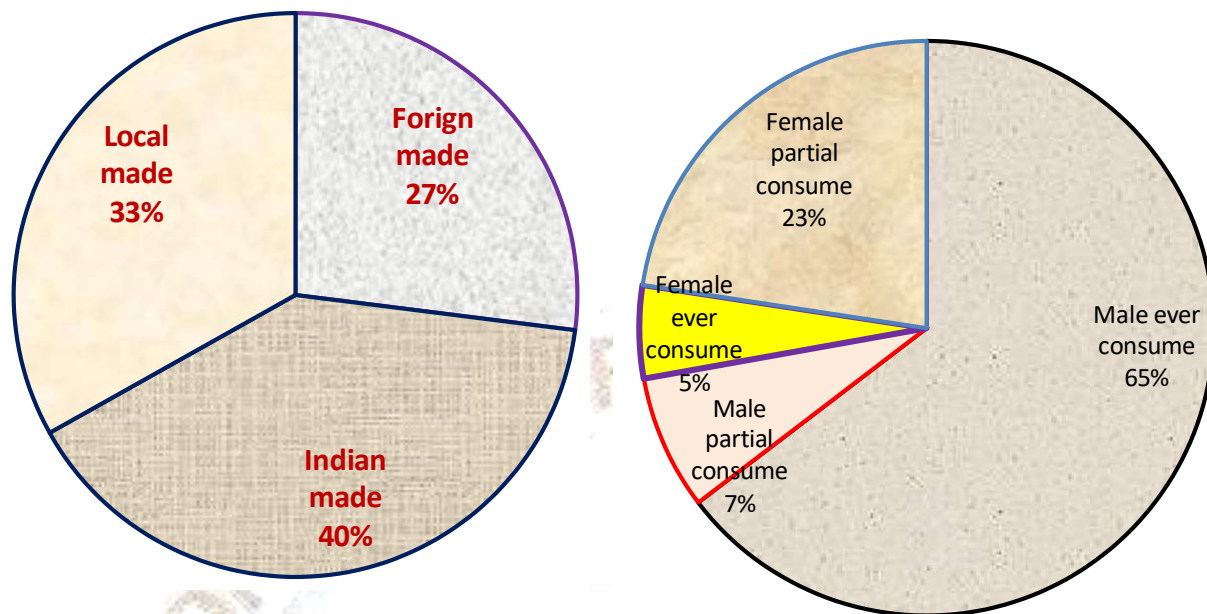


Figure-2: Type of consume alcohol

Figure-1:Alcohol duration using male and female

Table-3: Information based on the alcoholic related diseases in the responders:

Characteristics	Problem of the health		P-Value	Mean±SD
	Yes	No		
Liver problem				
Alcohol ever consume (N=683)	402	281	<0.0001 (HS)	0.589 ± 0.492
Alcohol partial consume (N=295)	16	279		0.054 ± 0.226
Stomach problem				
Alcohol ever consume (N=683)	136	266	0.0015 (S)	0.199 ± 0.399
Alcohol partial consume (N=295)	24	271		0.081 ± 0.273
Kidney problem				
Alcohol ever consume (N=683)	86	597	<0.0001 (HS)	0.126 ± 0.332
Alcohol partial consume (N=295)	12	283		0.041 ± 0.199
Diarrhea and hematemesis				
Alcohol ever consume (N=683)	156	527	0.057 (NS)	0.228 ± 0.419
Alcohol partial consume (N=295)	34	261		0.115 ± 0.319

Physical Discomfort

Alcohol ever consume (N=683)	116	567	0.887 (NS)	0.170 ± 0.376
Alcohol partial consume (N=295)	38	257		0.129 ± 0.336

Mental Discomfort

Alcohol ever consume (N=683)	256	427	0.0001 (HS)	0.375 ± 0.484
Alcohol partial consume (N=295)	26	269		0.088 ± 0.284

Table-4: Special impact of Alcohol abuse: (N=Number of responders):

Alcohol Impact	Disturbed family life	Lost job	Physical fight	Trouble with police	Accidents	Kids deprived of education	Suicidal impact	Abusive with family members
Number (N)	408	98	197	130	186	374	48	382

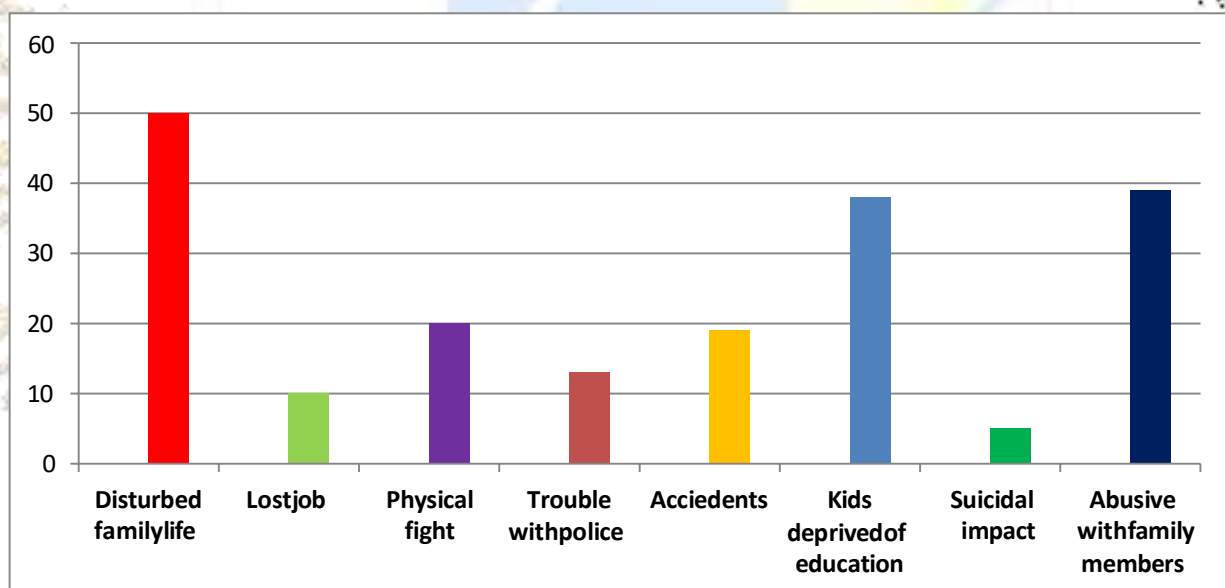


Figure:3: Special impact of Alcohol abuse:

Table:5: Expenditure for health in Alcoholic diseased patients: (N=Number of responders)

Expenditure source	Savings	Barrowing money from relatives	Sold house hold items	Sold lands	Employment/work
Number(N)	332	698	47	40	256

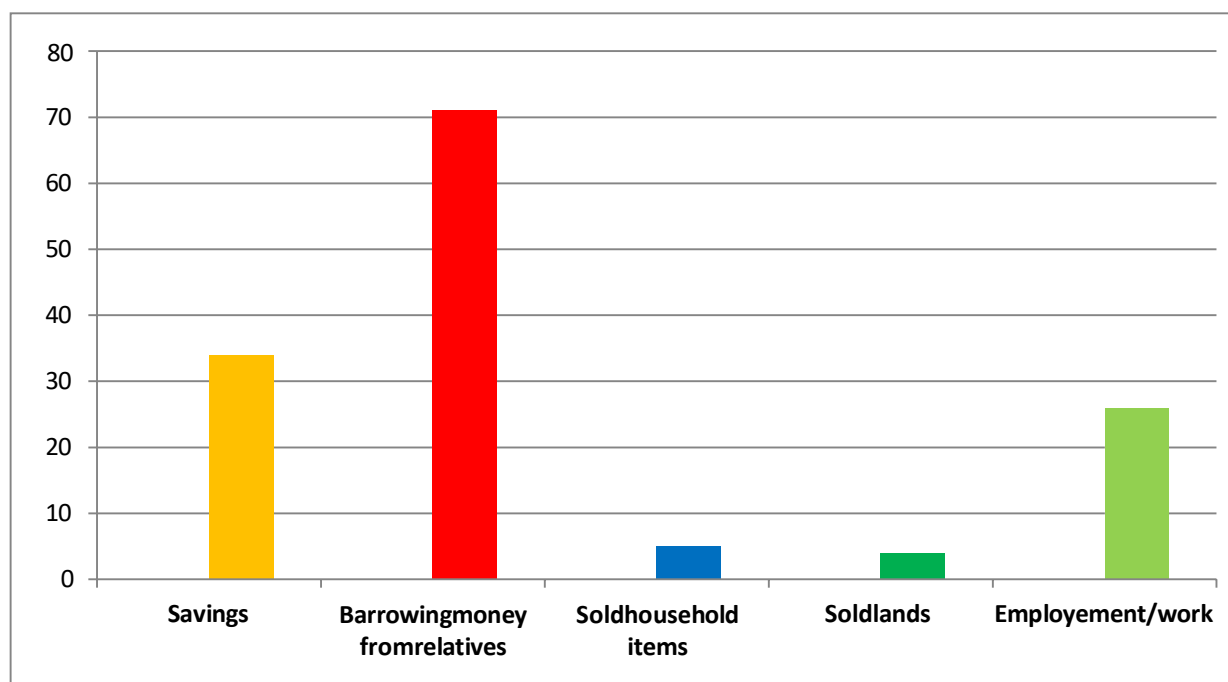


Figure:4:Expenditureforhealthin Alcoholicdiseasedpatients:

4. Discussion

In the present study, participants included both males and females, with 68% of respondents being below 35 years of age. Gender- and age-related differences in alcohol use are well documented. A meta-analysis by Chandrasekhar and Reddy reported a ten-fold difference in alcohol use between men and women (15). Most studies have consistently reported higher alcohol use among men, with prevalence ranging from 26% to 72% (9,10). Similarly, the present study observed that 85% of participants initiated alcohol consumption before the age of 30, including a significant proportion from the adolescent age group (15–20 years).

A Bangalore-based study (11) reported that nearly two-thirds (67.4%) of alcohol users belonged to the 25–45 year age group. The present study further strengthens this finding, with 85% of participants falling within the 30–35 year age range. Increasing age is associated with a higher risk of alcohol-related diseases, and in the present study, 75% of alcohol-related health hazards were observed among individuals aged over 45 years.

Alcohol consumption problems broadly affect three major dimensions:

1. Impact on family members,
2. Effect on the individual consuming alcohol
3. Social consequences of alcohol use.

Previous studies (11) have reported that 40% of intentional injuries and health problems were related to alcohol use. Alcohol-related violence and injury events such as physical violence against family members and the community, domestic abuse, and encounters with police have been reported to range from 8% to 96% (11). In the present study, family abuse was reported by 39% of participants, disturbed family life by 50%, physical violence by 20%, trouble with police by 13%, and suicidal impulses by 5% (Figure-3).

Earlier studies have also established a strong relationship between alcohol consumption and injuries, particularly road traffic injuries occurring within six hours of alcohol intake (20). In the present study, accidents and police-related cases were reported by 19% and 13% of participants, respectively, occurring due to both intentional and unintentional alcohol use (Figure 3).

A previous NIMHANS study in Bangalore reported an increase in negative life events, including injuries and psychosocial problems, resulting in frequent utilization of both routine and emergency health services (11,12). In the present study, 39% of participants experienced family abuse, 20% reported physical disturbances, and 50% had disturbed family lives due to alcohol-related problems.

A recent control study on suicide in Bangalore founds suicide rate to be 25 times higher among alcohol users compared to non-users (10). The probability of suicidal ideation was nearly twice as high among alcohol users, while suicide attempts were four times higher. In the present study, 5% of participants reported suicidal ideation requiring hospitalization (Figure 3). The study also identified multiple factors contributing to suicidality among alcohol users:

- i) Increased vulnerability to chronic illnesses,
- ii) Personal, familial, and economic problems caused by alcohol consumption,
- iii) Co-existing morbidities, particularly depression, which is a major risk factor for suicide, and
- iv) Aggressive and violent behavior toward spouses and children, leading to suicidal attempts (12,14).

Alcohol consumption also directly and indirectly affects workplace performance. Excessive alcohol use leads to poor punctuality, absenteeism, reduced work efficiency, and loss of work skills. In the present study, 10% of participants reported job loss due to alcoholism. Additionally, 33% consumed locally made alcohol, while 67% consumed both Indian-made foreign liquor and local alcohol (Figure 2).

According to the International Labor Organization (ILO), globally 3–5% of the workforce is alcohol-dependent, and up to 25% of heavy drinkers are at risk of dependence (15). In India, annual economic losses related to alcohol-related workplace problems are estimated to range between INR 70,000 and 80,000 million (16,17). In the present study, job loss due to alcohol-related problems was reported by 8–10% of participants.

The relationship between alcohol abuse and family bonding is highly complex. Family members often experience shame, anger, guilt, fear, grief, and social isolation due to alcohol abuse within the household. They also face harassment during intoxication, destruction of household property, lack of communication, prolonged absence from home, marital separation, and abusive behavior. In the present study, 79% of participants reported a monthly income between INR 5,000 and 10,000 (Table 2). More than half (52%) did not have any savings, and the average monthly expenditure on alcohol was INR 3,250.

Despite modernization, a majority of Indians continue to belong to agrarian, middle- or lower-income backgrounds. Misappropriation of family income toward alcohol leaves insufficient resources for food, housing, education, and other essential needs. In the present study, 38% of participants' children were deprived of education (Figure 3). Additionally, 5% sold household belongings, 4% sold land, and 71% borrowed money from friends or relatives (Figure 4). In India, it is estimated that 3–45% of household income is spent on alcohol consumption (16,18). In the present study, an average of 10–15% of total monthly income was spent on health-related expenses.

According to Raman, household expenditure on alcohol accounts for 5.1% of total income, with 0.5% of the population spending more than 30% of their earnings on alcohol (18). In the present study, 13% of participants sent their children under 16 years of age outside the home as migrant laborers to supplement family income. A previous Bangalore study similarly reported that 9.5% of children under 15 years of age from alcohol-using families worked outside to support household income.

According to the National Institute on Alcohol Abuse and Alcoholism (NIAAA, USA), 45% of the cost of harmful alcohol use is borne by individuals who abuse alcohol and their family members, 39% by federal, state, and local governments, and 16% by private insurance. The overall conclusion indicates that the major economic burden of alcohol use falls on families and society rather than solely on individuals who abuse alcohol or drugs (19).

5. Conclusions

The tribal community faces significant problems arising from alcohol consumption within families and society. Alcohol use is widespread among younger age groups, irrespective of economic status or community background. The harmful effects of alcohol are not limited to the individuals who consume it but also place a direct and indirect burden on the government and society at large.

The increasing prevalence of alcohol-related problems is attributed to the easy availability of Indian Made Foreign Liquor (IMFL). Communities report rising levels of alcohol-related morbidity and mortality, which contribute to family breakdown and an increasing burden on women, who are often forced to take greater responsibility for supporting their families.

The findings of the present study suggest that community-based interventions targeting both youth and adults at risk of alcohol-related diseases may be more effective and yield greater benefits than reliance on medical treatment alone.

Recommendations

- Community-based alcohol awareness campaigns
- Establishment of tribal de-addiction centers
- Policy-level regulation of local alcohol production
- Strengthening primary health care screening for alcohol-related disorders
- Involvement of tribal leaders in intervention programs

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References

1. World Health Organization. WHO Global Status Report on Alcohol and Health 2011. Available at: www.who.int/substance_abuse/publications/global_alcohol_report/msbgsruprofiles.pdf (Accessed 30 December 2014).
2. Kim SM, Rifkin S, John SM, Jacob KS. Nature, prevalence, and risk factors of alcohol use in an urban slum in southern India. *Natl Med J India*. 2013;26:203–209.
3. World Health Organization. Global Status Report on Alcohol 2004. Geneva: World Health Organization; 2004. Available at: http://www.who.int/substance_abuse/publications/global_status_report_2004_overview.pdf (Accessed 11 August 2015).
4. Obot IS, Room R. Alcohol, gender and drinking problems: Perspectives from low- and middle-income countries. Geneva: World Health Organization; 2005. Available at: http://www.who.int/substance_abuse/publications/alcohol_gender_drinking_problems.pdf (Accessed 1 September 2015).
5. Girish N, Kavita R, Gururaj G, Benegal V. Alcohol use and implications for public health: Patterns of use in four communities. *Indian J Community Med*. 2010;35:238–244.

6. Balgir RS. Tribal health problems, disease burden and ameliorative challenges in tribal communities with special emphasis on tribes of Orissa. Proceedings of National Symposium on Tribal Health. Available at: www.rmrct.org/files_rmrct_web/centre's_publications/NSTH_06/NSTH06_22.RS.Balgir.pdf (Accessed 30 December 2014).
7. Benegal V, Velayudhan A, Jain S. The social cost of alcoholism: A Karnataka perspective. NIMHANS J. 2000;18:67–69. Available at: www.nimhans.kar.nic.in/cam/CAM/Social_20Cost.pdf (Accessed 30 December 2014).
8. Reddy VM, Chandrashekar CR. Prevalence of mental and behavioral disorders in India: A meta-analysis. Indian J Psychiatry. 1998;40:149–157.
9. Dhupdale NY, Motghare DD, Ferreira AMA, Prasad YD. Prevalence and pattern of alcohol consumption in rural Goa. Indian J Community Med. 2006;31:104–105.
10. Premarajan KC, Danabalan M, Chandrasekhar R, Srinivasa DK. Prevalence of psychiatric morbidity in an urban community of Pondicherry. Indian J Psychiatry. 1993;35:99–102.
11. Benegal V, Gururaj G, Murthy P. Project report on a WHO multicentre collaborative project on establishing and monitoring alcohol's involvement in casualties, 2000–2001. Bangalore: NIMHANS; 2002.
12. Gururaj G, Girish N, Benegal V, Chandra V, Pandav R. Public health problems caused by harmful use of alcohol—Gaining less or losing more? Alcohol Control Series No. 2. New Delhi: WHO Regional Office for South-East Asia; 2006. Available at: <http://nimhans.ac.in/cam/sites/default/files/Publications/21.pdf> (Accessed 1 September 2015).
13. Gururaj G, Murthy P, Girish N, Benegal V. Psycho-social impact of alcohol—The hidden public health burden. Available at: <http://nimhans.ac.in/cam/sites/default/files/Publications/39.pdf> (Accessed 1 September 2015).
14. Ponnudurai R, Jeyakar J. Suicide in Madras. Indian J Psychiatry. 1980;22:203–205.
15. World Health Organization. The World Health Report 2002: Reducing Risks, Promoting Healthy Life. Geneva: World Health Organization; 2002. Available at: <http://www.who.int/whr/2002/> (Accessed 1 September 2015).
16. Üstün TB, Chatterji S, Villanueva M, et al. WHO Multi-Country Survey Study on Health and Responsiveness 2001. Geneva: World Health Organization; 2001.
17. Rahman L. Alcohol prohibition and addictive consumption in India. London School of Economics; [Year not specified].
18. Harwood HJ, Fountain D, Fountain G. The economic costs of alcohol and drug abuse in the United States, 1992. Addiction. 1999;94:631–635.
19. Ezzati M, Lopez AD, Rodgers A, Murray CJL. Comparative quantification of health risks: Global and regional burden of disease attributable to selected major risk factors. Geneva: World Health Organization; 2004. Available at: http://apps.who.int/iris/bitstream/10665/42792/1/9241580348_eng_Volume1.pdf (Accessed 1 September 2015).
20. International Labour Organization. ILO code of practice on the management of alcohol- and drug-related issues in the workplace. Geneva: International Labour Organization; 1996. Available at: http://www.ilo.org/safework/info/standards-and-instruments/codes/WCMS_107799/lang-en/index.htm (Accessed 1 September 2015).
21. Bonu S, Rani M, Peters DH, Jha P, Nguyen SN. Does use of tobacco or alcohol contribute to impoverishment from hospitalisation costs in India? Health Policy Plan. 2005;20:41–49.
22. Gururaj G, Girish N, Benegal V. Burden and socio-economic impact of alcohol: The Bangalore Study. New Delhi: World Health Organization; 2006. Available at: http://www.searo.who.int/entity/mental_health/documents/9290222727.pdf (Accessed 1 September 2015).

23. DasSK,BalakrishnanV,VasudevanDM.Alcohol:ItshealthandsocialimpactinIndia.NatlMedJ India. 2006;19:94–99.

