



Research on Alcohol Consumption and Physical Illness in India: Government's Responsibility to Stop Alcohol from Reaching Students in High School and College

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Abstract

One of the most commonly utilized psychoactive chemicals worldwide is alcohol in beverage form. Alcohol abuse has emerged as a significant public health issue and the third-highest global risk factor for disease and disability. Alcohol is a psychoactive substance that is often used in beverages. Due to their widespread availability and ease of use in many situations, people often do not view alcoholic beverages as drugs. To counteract the behavioral, social, and psychological problems associated with alcohol consumption, cultures all over the world have surrounded alcoholic beverages with a variety of rules and regulations due to their complex pharmacological qualities, which include a wide spectrum of psychoactive effects. Alcohol abuse has emerged as a significant public health issue and the third-highest global risk factor for disease and disability. According to the findings of our study, the degree of dependence, the length of time spent drinking; the amount spent each month, and the frequency of drinking all influence caregiver's perceptions of their workload. It is crucial to understand the prevalence and costs of alcohol consumption in different States and within the States of the nation because alcohol consumption policies and laws vary across different States within the nation. This community-based cross-sectional descriptive study was carried out in various states across the country. People who drink alcohol are more likely to experience health issues like hypertension, gastrointestinal issues, and mental diseases, and statistically significant relationships have been identified between these health issues and alcohol intake. Our study demonstrates that people of various severities encounter a wide range of issues. The many issues with human family welfare, organ disorders, various illnesses, and unjustifiable diseases are revealed to the consuming public in this text.

Keywords: Acetaldehyde; Alcohol; Cardiovascular Diseases; Diabetes Mellitus; Liquor; Cirrhosis; Hypertension; Cerebra Vascular Accidents; Gastrointestinal Diseases; Musculoskeletal Problems; Psychiatric Illness; Alcohol; India; Culture; Traditional Use Contemporary Use; Public Health; Liver Disease; Legal Action; Motor Vehicle Act; Social Illness

Abbreviations: FAS: Fetal Alcohol Syndrome; WHO: World Health Organization; WMH-ICS: World Mental Health International College Student; TASMAL: Tamil Nadu State

Marketing Corporation; NFHS: National Family Health Survey; NGO: Non-Governmental Organization; NIMHANS: National Institute of Mental Health and Neurosciences;

AIIMS: All-India Institute of Medical Sciences ; IMFL: Indian-Made Foreign Liquor; NFHS: National Family Health Survey; RDS: Respondent Driven Sampling; ATS: Amphetamine Type Stimulants; HHS: Household Survey; ALD: Alcoholic Liver Disease; NIMHANS: National Institute of Mental Health And Neurosciences; BAC: Blood Alcohol Concentrations.

Introduction

The primary risk factors for alcohol consumption were found to be tobacco use, alcohol consumption patterns among family members, a lack of understanding about the health problems brought on by alcohol consumption, and the stigma attached to not drinking. The statistical significance of the associations between alcohol usage and the aforementioned risk variables was also found. The main risk factors for problem drinking among current drinkers were found to be the usage of alcoholic beverages in wine shops and bars, coexisting depression, and having family conflicts because of their alcohol consumption pattern. People who drink alcohol are more likely to experience health issues like hypertension, gastrointestinal issues, and psychiatric illnesses, and statistically significant relationships have been found between these health issues and alcohol consumption.

Overview of Alcohol

Alcohol is a psychoactive substance with dependence-producing properties that has been widely used in many cultures for centuries. The harmful use of alcohol causes a high burden of disease and has significant social and economic consequences. The harmful use of alcohol can also result in harm to other people, such as family members, friends, co-workers, and strangers. Alcohol consumption is a causal factor in more than 200 diseases, injuries, and other health conditions. Drinking alcohol is associated with a risk of developing health problems such as mental and behavioral disorders, including alcohol dependence, and major noncommunicable diseases such as liver cirrhosis, some cancers, and cardiovascular diseases. A significant proportion of the disease burden attributable to alcohol consumption arises from unintentional and intentional injuries, including those due to road traffic crashes, violence, and suicide. Fatal alcohol-related injuries tend to occur in relatively younger age groups. A causal relationship has been established between harmful drinking and the incidence or outcomes of infectious diseases such as tuberculosis and HIV. Alcohol consumption by an expectant mother may cause fetal alcohol syndrome (FAS) and pre-term birth complications.

Definitions

Never users were “who never tasted alcohol”, Occasional users were “who use alcohol less than once a week or

occasionally used or tasted once or Past users” and the Current users were “who use alcohol weekly minimum once to daily basis”.

Operational Definitions

Alcoholism: Chronic, crippling addiction characterized by binge drinking and the onset of withdrawal symptoms when cutting back or stopping consumption.

Alcohol Dependence (using alcohol too much): After frequent alcohol use, alcohol dependency is a collection of behavioral, cognitive, and physiological problems that may manifest. These symptoms include a strong desire to drink, poor control over alcohol use, continued drinking despite negative effects, prioritizing drinking over other activities and obligations, increased tolerance to alcohol, and a physical withdrawal reaction when alcohol use is stopped.

Drinking Disorder: A person who drinks excessively and causes personal, societal, or collective issues is said to be a problem drinker.

Harmful Alcohol Use: According to the World Health Organization (WHO) [1-24], hazardous drinking is a pattern of alcohol intake that raises the risk of negative outcomes for the user or others. Despite the lack of any current disorders in the individual user, harmful drinking habits are important for public health.

Binge or Excessive Drinking: Six or more drinks consumed on a single occasion, monthly or more frequently, is considered binge drinking.

Regular Swigger or Normal Drinker: A person who drinks within the safe limits range that is, no more than 4 units per day and no more than 21 units per week is considered a normal drinker.

Now Drinking: Currently drinking is referred to as a current drinker. An individual who has drunk one or more drinks of any sort of alcohol throughout the research period is considered a current drinker.

Average Beverage Specifications: One standard drink is equal to one can of beer or one-half bottle of beer (330 mL) at 5% strength multiplied by 0.79 (the conversion factor) to equal 13 g of ethanol, one glass of wine (140 mL) at 12% strength multiplied by 0.79 to equal 13.3 g of ethanol or one shot of liquor (30 mL) at 40% strength multiplied by 0.79 to equal 12.6 g of ethanol. World Health Organization, Regional Office for South-East Asia. Prevention of harm from alcohol use.

Modified Prasad's Classification: Classification of rural residents according to per-capita income. Modified Prasad's classification divides the rural population into five socioeconomic status classes. By using the formulas, modified Prasad classification is achieved. Monthly income per capita estimated by BG Prasad in 196. The correction factor, where correction factor = 0.0493 and consumer protection index. The Labour Bureau of the Government of India calculates the

consumer protection index, which is updated each month. The adjustment factor was estimated as 30.41 since the consumer price index for rural Tamil Nadu during the study period was found to be 617 INR [16].

An Ambivalent Drinking Culture's Historical Construction

However, this seeming history of abstention might just be a relatively recent invention. The numerous records of various fermented and distilled beverages made from fruits, grains, and flowers; archaeological evidence of distillation in ancient India; complex regulations governing production, sales, taxation, and public intoxication; lyrical descriptions of ritual fiesta drinking by both sexes in secular literature; early recognition of the medical effects of excess; and the priests' frequent warnings against alcohol consumption. Apart from a portion of the Brahminical (priestly class) aristocracy, society underwent significant social transformation throughout the colonial era, transforming what appears to have been a society with a rather liberal attitude towards alcohol. The fast industrial development of the 19th century and the establishment of an urban middle class contributed to the socio-economic empowerment of the lower castes. One strategy used by the lower strata to rise in social rank was to change their eating habits. The rising middle classes adopted vegetarianism and abstinence from alcohol as upper-caste customs because of this Sanskritization phenomenon.

Parallel to this, the colonial government's abkari (excise) policies, which limited the production of alcoholic beverages to licensed government distilleries, resulted in the rapid replacement of traditional alcoholic beverages by mass-produced factory-made products with higher alcohol content and less variety, which were progressively more expensive due to constantly rising taxation. Increased consumption, intoxication, and crime were the results of the massive growth of distilleries and the practice of auctioning off the right to distill and sell an unlimited amount of beverage alcohol. Drinking came to be seen as a distinctively English vice as this was seen as an unwanted imposition of English rule. The power elite began to view alcohol consumption as either an atavistic tendency of the impoverished and the primitive (tribes and socially backward individuals drank to escape their sad existence) or as a licentious affectation of the higher classes.

Gandhi and the nationalist movement worked together to channel middle-class ambitions for sobriety into large-scale campaigns against drinking as a representation of colonial tyranny. They developed a call for complete prohibition because of their conviction that the Indian nation should be ritually clean. Prohibition was listed as one of the Directive

Principles of state policy by the Constituent Assembly of independent India.

State governments were left to decide how to regulate and tax alcohol on their own. Alcohol taxes are the second-largest source of revenue for states' exchequers after sales tax, accounting for 15-20% of state revenue in many cases. Due to this, there is now a "ambivalent" drinking culture that is neither dry nor wet. While governments and alcohol producers push alcohol sales to make money, alcohol consumption draws social scorn. In several jurisdictions, maintaining strict sales quotas that are periodically raised upward is required to renew retail licenses [16].

The alcoholic beverage business has a noticeable impact on politics through donations to political parties and voter incentives during elections. A few years back, the country's future prime minister arrived for his investiture ceremony in the private jet of a well-known booze producer. However, the majority still stigmatize alcohol consumption.

An Analysis of Alcohol

Alcohol is a psychoactive drug created by the fermentation of yeast, sugars, and starch; it usually takes the form of an alcoholic beverage and has the ability to cause dependence. It is an element that appears as ethanol or ethyl alcohol in alcoholic beverages such as beer, wine, brandy, whisky, and rum. A condition known as alcohol intoxication or drunkenness can result from the use of these in large enough quantities. Although it affects all the body's systems, it mostly affects the central nervous system. It simply takes a few minutes for it to start acting after it enters the bloodstream and gets to the brain. The liver is the main organ that converts alcohol to acetaldehyde. The liver needs around an hour to completely digest a typical alcoholic beverage. One normal alcoholic beverage in Indian culture is 10 grams of pure alcohol. Alcohol use that is officially recorded in statistics, such as information on alcohol taxation or sales, is known as registered alcohol. Alcohol Per Capita Consumption (APC), a statistic, is used to gauge alcohol consumption levels across the globe. It is described as the volume of pure alcohol drunk per person in each population. In accordance with reports from the WHO [25], the average annual total per capita intake of alcohol among people over the age of 15 is close to 6.2 liters of pure alcohol or 13.5 grams of pure alcohol ingested per day. This varies greatly across the globe, with Southeast Asia regions having the lowest consumption (2.5 liters) and industrialized nations like Europe and America having the most (>12.5 liters). Although India has a modest per capita alcohol consumption (between 2.5 and 4.9 liters), unreported alcohol usage is shown to be significantly greater. Alcohol that is sold and distributed outside of the official

channels under government supervision is referred to as unrecorded alcohol and is not taxed in the nation in which it is produced and consumed.

Because a bigger percentage of alcohol drunk is manufactured at home and isn't counted in official statistics, there is a significant rate of unreported alcohol consumption among Indians. According to the WHO, harmful alcohol use was responsible for 3.3 million deaths, or 5.9% of all deaths worldwide, of which 6.2% were attributable to males and 1.1% to women. Alcohol usage has been linked to more than 200 ailments, including accidents, malignancies, liver cirrhosis, and alcohol dependence, according to the World Health Organisation. Alcohol use was a factor in 5.1% of the global illness burden in 2012 [6]. In addition to its direct effects on drunkenness and addiction, alcohol is thought to contribute to between 20 and 30 percent of homicides, seizures, cirrhosis of the liver, esophageal cancer, liver cancer, and motor vehicle accidents globally. Alcohol use is permitted in Tamil Nadu only if you are 21 years old or older.

Alcoholic beverage wholesale distribution and retail sales are handled by Tamil Nadu State Marketing Corporation (TASMAC). Since 1971, various laws banning alcohol have been in place but have since been repealed by elected political parties. Political leaders were more concerned about the closing of liquor stores, which has been happening for the previous few years than they were about enacting bans or legislation regulating alcohol usage. The illegal use of alcohol in the form of arrack or toddy increases whenever there is an alcohol consumption ban in place, which causes an increase in mortality and ultimately leads to the lifting of the restriction [25]. World Health Organization, Regional Office for South-East Asia. Prevention of harm from alcohol use.

Problems Related to Alcohol

These results in a large amount of alcohol-related morbidity, it goes without saying. Despite representing nearly a quarter of hospital admissions, primary care doctors frequently overlook alcohol-related disorders. Over 20% of traumatic brain injuries and 60% of all injuries reported to emergency departments have been linked to alcohol abuse. The risk of willful self-harm, high-risk sexual behaviors, HIV infection, tuberculosis, esophageal cancer, liver illness, and duodenal ulcer is disproportionately high. The societal costs of alcohol abuse are significant. According to research from the Indian state of Karnataka, the monetizable direct and indirect expenses attributed to individuals with alcohol dependence alone were more than three times the revenue from alcohol taxes and several times the state's yearly health budget. These studies on morbidity are all regional estimates, but given the pervasiveness of risky drinking habits, they

ought to be generalizable nationwide. Alcohol abuse is a significant public health issue in India, although this is not acknowledged enough.

The Function of the Government and its Official Response to Alcohol Abuse

The Provision of Care

Under the auspices of the National Drug Addiction Program, the Government of India has sponsored 483 detoxification and 90 counseling institutions across the nation to treat persons with drug misuse disorders; 45% of those seeking treatment at these facilities have alcohol dependence. Due to their one-time grant, many of these centers are no longer operating. At places where alcohol consumption is most common, help-seeking rates at these centers are paradoxically the lowest, and the overall effectiveness of the offered treatment courses is low. There is strong evidence from India that policy should focus on creating microenvironments that are more supportive of promoting healthy habits rather than relying solely on individual behavioral change. That is unlikely, though, since state governments publicly repudiate their support for alcohol prohibition and try to avoid paying for health care out of tax dollars. Already, 82% of all health spending is made up of private funds.

Raise Awareness of the Problem with Drinking

The mainstream media prefers graphic depictions of alcohol-related violence and inspiring reports of intermittent, fleeting anti-alcohol movements by women's organizations. These, paradoxically, help to further marginalize the subject and prevent a fair public debate. Since funding for the study is scarce due to the low priority of the topic, there is little in the way of published literature that can guide public policy by estimating the socio-economic effects of alcohol abuse on a national level. The big spirits corporations' social responsibility departments and elements of the English-language mainstream media that promote alcohol's health advantages have encroached on that territory.

There is concern that such actions would be counterproductive or even be seen as an encouragement to drink among a population of abstainers in the absence of evidence that the wise or safe drinking paradigms can be universally applied. Hopefully, the efforts of non-governmental organizations, which are seeing the significant detrimental effects that problematic alcohol use has on the execution of their health and development activities, will serve as the catalyst for a reasonable public health approach to alcohol policy.

Policies for Prevention

Sadly, the government reaction continues to concentrate on the visible tip of the alcohol problem—individuals who have alcohol dependence (about 4% of the adult male population)—rather than on the developing crisis caused by hazardous drinking among more than 20% of adults. The method used for alcohol control laws at the federal and state levels reflects this. The exclusive emphasis is on tertiary prevention and supply reduction (prohibition-centric). Despite evidence of decreased consumption and improved indicators of economic well-being, every attempt by individual state governments to prevent misuse through prohibition has been hastily reversed in the face of mounting revenue deficits, costs of policing smuggling from neighboring states, and the resulting underground alcohol economies (personal communication, Excise Commissioner, Andhra Pradesh). In fact, despite being incorporated into the constitution, many state governments have officially renounced their official support for prohibition. In other nations, higher taxes have been used to lower consumption. Given that consumers in India have easy access to unreported (illegal and excise-evaded) alcohol that is outside the jurisdiction of taxation, the impact of such efforts is minimal. Concerns have also been raised about the fact that alcohol is a generally price-inelastic product, meaning that raising its price would only increase the cost for drinkers and make things worse for their families without necessarily having any positive effects. Regulations governing sale hours, sales to minors, and drunken driving are upheld in violation. One of the harshest laws in the world, the Indian Motor Vehicles Act establishes a blood alcohol cut-off of 30 mg% for drivers. A recent survey, however, indicated that 40% of drivers in Bangalore city exceeded the limit over the course of a month.

Commonality of Drug Use

India is typically thought of as having a “dry” or “abstaining” culture. Only 21% of adult males reported using alcohol in the last year in a recent National Household Survey on Drug Use, the only systematic effort to assess the prevalence of drug use across the country. Naturally, this figure cannot reflect the huge variety that exists in a big, complicated country like India. Arunachal Pradesh in the northeast of the country had a prevalence of current alcohol usage of 75%, whereas Gujarat in the west, which was nominally in Prohibition, had a low prevalence of current alcohol use of only 7%. Additionally, there is a stark disparity in gender. Though it has constantly been reported that prevalence among women is less than 5%, the northeastern states and southern states have substantially higher prevalence rates. Tribal, rural, and lower socioeconomic urban populations all have significantly higher use [26-30].

According to calculations made using official sales and demographic data from 2003, the per capita consumption is 2 l/adult/year. This is expected to be approximately 4 l, which is still low compared to consumption in wet countries after accounting for undocumented consumption (illicit beverages and tax-evaded products), which makes up 45–50% of total consumption. More than 95% of the drinks consumed by both men and women are spirits, including legally produced country liquor (rectified spirit mixed with water at 33.3% v/v), illegally distilled spirits (of undetermined composition), and foreign liquors made in India at 42.8% v/v. Less than 5% of people drink beer, with strong beers with strengths over 8% v/v accounting for 70% of sales. Wine is a relatively new yet expanding market.

An Ambivalent Drinking Culture's Social Cost

Naturally, there are no predetermined patterns of conduct to manage drinking practices in a context where conventional societal regulation of drinking has been replaced by decades of temperance or prohibitionist rules. As well as chronic, crippling alcoholism, this is known to predispose to deviant, inappropriate, and asocial behavior. More than 50% of drinkers meet the criterion for hazardous drinking, according to repeated observations [31-36].

Heavy drinking is the defining pattern, with usual instances involving more than five standard drinks. Surprisingly, the amount of alcohol consumed by men and women is nearly identical. Although a sizable portion of drinkers in both genders do so every day or nearly daily, males tend to drink much more frequently than women. Under-socialized, lone, mostly-spirit drinking, drinking till inebriated, and expectations of alcohol-related inebriation and violence all contribute to the risky practices.

Economic Liberalism, Social Progress, and Modifications in Drinking Habits

The socio-economic structure of Indian society is currently undergoing another major transformation. The effects of economic liberalization and globalization of satellite television exposure, rapid socioeconomic change, and rising disposable incomes appear to have contributed to a general shift in attitudes toward greater normalization of alcohol use. The average age at which people start drinking has significantly decreased. According to data from Karnataka, the average age decreased from 28 to 20 years during the birth cohorts of 1920-30 and 1980-90. Over the last three years, alcohol sales have grown at a consistent rate of 7-8%. Most of this economic growth has been driven by southern India, where the highest expansion is visible. With

a discernible increase trend in drinking rates among urban medium and upper socio-economic sections, it is clearly concentrated on the non-traditional segment of urban women and young people Standards for drinking. The beer, white spirits, and wine non-traditional sectors are seeing an increase while the country spirits and whisky segment, which formerly accounted for over 95% of documented consumption, has suffered stagnation. A fresh, social pattern is replacing an aging one as a new customer segment form.

To attract non-drinkers, the local alcohol business has launched new goods such as flavor-infused and moderate alcoholic beverages that are largely marketed to women and young men. The industry works around advertising bans by using surrogate advertising, and the focus of alcohol advertising of surrogate and point-of-purchase has shifted from voluptuous pin-ups i.e., targeting the traditional market of middle-aged male consumers, to lifestyle ads promoting the connection with good times, clearly aimed at women and youth.

Given its expanding consumer base, enormous untapped markets, and commitments to the World Trade Organization to ease quantitative restrictions on alcohol imports, multinational alcohol beverage companies have identified India as one of the most alluring markets for investment. The trade papers have recently reported a flurry of multinational businesses purchasing regional beverage companies. State governments drive sales by imposing yearly incremental targets on production and sales, which is in contradiction with their goals of promoting health and welfare.

The amount of health damage caused by alcohol will significantly increase when the rising prevalence converges on the defining pattern of frequent heavy drinking. As death rates decline and national revenues rise, it is sometimes believed that higher socioeconomic strata are disproportionately affected by non-communicable diseases. The prevalence of alcohol and tobacco use is higher among the poor in low-income nations like India, which raises their risk of cardiovascular disease, cancer, liver disease, and injuries in comparison to those who are better affluent. Additionally, there is a direct correlation between using tobacco and alcohol and financial hardship, including borrowing money and selling assets at a loss because of medical expenses.

Factors influencing Alcohol Use and Alcohol-Related Damage Include

At both the individual and societal levels, numerous variables that influence alcohol consumption levels, patterns, and the scope of alcohol-related issues in populations have been found. The degree of social development, culture, social norms, accessibility to alcohol, and the introduction and

enforcement of alcohol legislation are examples of societal variables. For a given level and pattern of drinking, adverse health effects, and social consequences are greater for poorer societies. Age, gender, familial situation, and socioeconomic level are all personal aspects. Although there is no single risk factor that predominates, a person is more likely to experience alcohol-related difficulties because of alcohol usage if they have more vulnerability. Alcohol drinking causes more health and social harm to fewer wealthy people than to more wealthy people.

The total amount of alcohol drunk and drinking habits, particularly those habits linked to bouts of heavy drinking, are major factors in how alcohol use affects chronic and acute health consequences. Alcohol-related harm is frequently brought on by the circumstances surrounding drinking, particularly when alcohol intoxication is involved. Drinking alcohol can affect not only the occurrence of diseases, accidents, and other health conditions but also their results and how they change over time.

The impact of alcohol consumption on chronic and acute health outcomes is largely determined by the total volume of alcohol consumed and the pattern of drinking, particularly those patterns which are associated with episodes of heavy drinking. The context of drinking plays an important role in the occurrence of alcohol-related harm, particularly as a result of alcohol intoxication. Alcohol consumption can have an impact not only on the incidence of diseases, injuries, and other health conditions but also on their outcomes and how these evolve over time. As well as amounts and patterns of alcohol intake, there are gender disparities in mortality and morbidity caused by alcohol use. Men account for 7.7% of all fatalities worldwide from alcohol-related causes, compared to women who account for 2.6% of all deaths. Male drinkers used 19.4 liters of pure alcohol on average per person in 2016 whereas female drinkers consumed 7.0 liters on average.

Review of Related Literature

- **Kiekens G, et al.** [37-39]: The purpose of this study was to provide the first international statistics on the prevalence of NSSI and NSSI disorders among first-year college students, as well as the relationship between these conditions and mental illnesses. The World Mental Health International College Student (WMH-ICS) program surveyed the incoming classes at 24 institutions in nine countries, gathering information from 20,842 first-year students who completed web-based self-report surveys. We looked at time-ordered relationships between NSSI and the mood (major depressive and bipolar disorder), anxiety (generalized anxiety and panic disorder), and substance use disorders (alcohol

and drug use disorder) in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-IV). 17.7% and 8.4%, respectively, of NSSI cases over the course of a year. 2.3% of 12-month DSM-5 NSSI disorders tested positive. 59.6% of people with lifetime NSSI met the requirements for at least one mental illness. Primary lifetime mental disorders did not consistently predict 12-month NSSI among respondents with lifetime NSSI, but they did temporarily predict the later development of NSSI [median odds ratio (OR) 2.4]. On the other hand, among students with a generalized anxiety disorder (OR 1.6) and bipolar disorder (OR 4.6), NSSI consistently predicted later onset of mental illnesses (median OR 1.8) as well as 12-month persistence of mental disorders [40].

- **Li Y Wang** [41-43]: There are no metabolite markers for chronic alcohol intake. We investigated the circulating metabolites linked to long-term alcohol consumption and tested if they were linked to incident cardiovascular disease (CVD) to better understand the molecular mechanisms behind the link between alcohol consumption and CVD. In total, 2,428 Framingham Heart Study Offspring participants (mean age 56 years, 52% women) consumed beer, wine, and spirits for an average of 19 years. This resulted in a cumulative average alcohol intake (g/day). We investigated the relationships between alcohol consumption and 211 plasma metabolites that had been log-transformed using linear mixed models, controlling for age, sex, batch, smoking, diet, physical activity, BMI, and familial ties. The correlation between alcohol-related metabolite scores and incident CVD (myocardial infarction, coronary heart disease, stroke, and heart failure) both fatal and nonfatal was examined using Cox models. ($p_{0.05/211} = 0.00024$) We found 60 metabolites linked to cumulative average alcohol intake. For instance, a one g/day increase in alcohol intake was linked to increased levels of phosphatidylcholine (PC 32:1, $\beta = 0.0210.002$, $p = 3.1e-38$) and cholesteryl esters (CE 16:1, $\beta = 0.0230.002$, $p = 6.3e-45$). After controlling for age, sex, and batch, survival analysis revealed that 10 alcohol-related metabolites were also associated with a differential CVD risk. More specifically, we constructed two alcohol consumption weighted metabolite scores using these ten metabolites and demonstrated that, after adjusting for age, sex, batch, and common CVD risk factors, the two scores had similar but opposing associations with incident CVD, with hazard ratios of 1.11 (95% CI=[1.02, 1.21], $p = 0.02$) vs. 0.88 (95% CI=[0.78, 0.98], $p = 0.02$). We found 60 metabolites connected to chronic alcohol consumption. The association study with incident CVD reveals that there is a complex biochemical link between drinking alcohol and developing CVD.

- **Pettigrew S** [44,45]: Many governments are not systematically implementing evidence-based alcohol control measures, and the debate between market freedom and individual responsibility is still going on. This international study's objective was to determine how much the public believed that the government, the private sector, and individuals were responsible for a variety of alcohol control strategies. An online survey was conducted with approximately 1000 respondents from seven nations (Australia, Canada, China, India, New Zealand, the UK, and the US; $n = 7559$) to determine demographics, alcohol consumption patterns, and perceived accountability for four alcohol harm-reduction measures related to alcohol availability, advertising, and public awareness campaigns. Governments were chosen as relevant actors throughout the entire sample and all examined acts in 66% of cases, the private sector in 39%, and individuals in 28%. Respondents from New Zealand were more inclined than those from the US to believe that the government was responsible for the activities, and vice versa. Only 8% of respondents thought the activities were not worthy of any actor's attention. Governments were found to be the most suitable players in each of the seven countries to take steps to limit alcohol availability, control alcohol advertising, and spread public awareness-raising efforts. According to the findings, the public might be open to more action in these areas.
- **Riordan BC** [46-50]: The first-year university students who got a WBI + EMI or a WBI did not:
 - a. Drink less than those who did not get any intervention during their first semester;
 - b. Drink less during a typical week in the academic year; or
 - c. Suffer fewer effects [22,51].

Additionally, despite the WBI + EMI group's heavy emphasis on Week, they did not consume considerably fewer drinks throughout the week. In line with earlier studies that followed first-year students. There was no main effect of WBI or WBI + EMI (IRR = 0.97, CI = 0.85 - 1.11, $p = 0.665$) or WBI + EMI (IRR = 0.95, CI = 0.83-1.09, $p = 0.471$) and no interaction between WBI and time (IRR = 1.0, CI = 0.98-1.03, $p = 0.911$) or WBI and time (IRR = 1.0, CI = 0.98-1.03, $p = 0.911$) or WBI and time (IRR = 1.0, CI = 0.98-1.03, $p = 0.911$). Table 1 shows that for each scenario, the number of drinks decreased over the first semester. Participants were 783 first-year students with a majority of New Zealand European (77.7%; 4.7% Maori; 7.2% Asian; 10.4% other) and female (68.1%; 31.9%) ancestry (Mean = 18.06; SD = 0.86). The included sample closely matched the demographics of the university as a whole in 2019 (which was 60% female and 72% European; University of Otago 2022). Orientation Week drinking, academic year drinking (both "typical" semester or fortnightly consumption), or alcohol-related harms did not

differ significantly between the conditions.

- **Ávila-Burgos L** [52]: The psychoactive substances that teenagers use the most commonly are alcohol and cigarettes. Together, these two addictions contribute the most to the global disease burden. The purpose of this study was to investigate the association between the intake of alcohol and tobacco among Mexican teenagers aged 10 or older and to determine whether socioeconomic factors are associated with either substance. This ecological study made use of information on alcohol and cigarette use among teenagers aged 10 to 16 ($n = 48,837$ $n = 11,621,100$). Alcohol consumption is defined as having ever ingested any alcoholic beverage. Cigarette usage was defined as smoking a cigarette within 30 days. The state-level percentages given in the survey were utilized for both variables. Numerous socioeconomic factors were gathered from official sources.

An Excel database containing socioeconomic characteristics and data on the prevalence of alcohol and cigarette use in each of the states of the Mexican Republic was created. We employed stata 14 to carry out the analysis. Alcohol consumption was 15.0% more common than cigarette use (4.2%). No socioeconomic variable under investigation related to alcohol use ($p > 0.05$). The percentage of the population living in private homes without sewage, drainage, or sanitates ions is linked ($p 0.05$) with the incidence of tobacco use among primary school pupils ($r = 0.3853$). The prevalence of smoking among middle-school students was correlated with the proportion of workers earning up to two minimum wages ($r = 0.3960$), the percentage of people living in poverty as measured by income in 2008 ($r = 0.4754$) and 2010 ($r = 0.4531$), and the percentage of people living in extreme poverty as measured by income in 2008 ($r = 0.4612$) and 2010 ($r = 0.4291$). Between cigarette use and alcohol use, there were positive connections among elementary school students ($r 0.5762$, $p 0.0006$) and middle school students ($r 0.7016$, $p 0.0000$). These findings imply that some socioeconomic characteristics are associated with cigarette use but not alcohol use. There is a connection between drinking alcohol and smoking cigarettes. The findings can be utilized to create interventions for adolescents.

- **William** [53]: One drink per day, or fewer, is associated with the lowest risk of coronary heart disease (CHD). This risk may be much lower. Cardiovascular disease in general also reflects this. The risk of cardiovascular disease, including stroke and heart failure, rises when alcohol consumption climbs as well. For several other illnesses, a similar J-shaped association has also been documented.

Drinkers who consume more than four drinks each day run a significantly higher risk of developing several health conditions. Alcohol abuse, particularly binge drinking, is linked to mishaps, violence, and suicide. Other harmful impacts of alcohol on health include an increased risk of cancer and fatal alcohol syndrome, among other things. When alcohol use ranges between zero and one drink per day, life expectancy is the longest. Life expectancy decreases as alcohol consumption rises. Alcohol has advantages for people over the age of 50 or 60, but not for people under the age of 40. The standard recommendations that limit daily alcohol consumption to one to two drinks may be a bit excessive. Small, regular servings of alcohol are preferable to binge drinking. Alcohol and alcohol-related illnesses cardiovascular diseases cardiovascular condition Alcoholism during pregnancy Cancer body mass Death and alcohol Regularity of drinking.

- **Hou CY** [54-56]: Both adult and teenage samples show a bidirectional relationship between sensation seeking and alcohol use, which may be partially explained by common neurobiological and genetic factors. Instead of having an immediate impact on problems and consequences, links between sensation seeking and alcohol use disorder (AUD) might instead show up as increased alcohol use. Here, we used multivariate modelling strategies for genome-wide association study (GWAS) summary data in conjunction with neurobiologically-informed analyses at several levels of inquiry to explore the overlap between sensation seeking, alcohol use, and AUD. Sensation seeking, alcohol use, and AUD GWAS were conducted using meta-analytic and genomic structural equation modelling (GenomicSEM) methods. The following analyses examined shared brain tissue enrichment of heritability and genome-wide evidence of overlap (e.g., stratified Genomic SEM, RRHO, genetic correlations with neuroimaging phenotypes), and they identified genomic regions likely contributing to the observed genetic overlap across traits (e.g., H-MAGMA, LAVA). Results from several methods suggested that alcohol intake and sensation-seeking share a common neurogenetic architecture, which is characterized by an overlapping enrichment of genes expressed in the midbrain and striatal tissues and variations linked to an increased cortical surface area. Alcohol use and AUD showed overlap in terms of variations linked to a loss of front cortical thickness. Finally, genetic mediation models demonstrated that drinking alcohol mediates correlations between sensation seeking and AUD. By analyzing significant sources of neurogenetic and multi-omics overlap across sensation seeking, alcohol use, and AUD that may underlie observed phenotypic relationships, this work expands on prior studies.

- **Nayab** [57-60]: Among Pakistan especially, alcohol drinking is a big problem among Islamic nations. In Pakistan, hotel bars and licensed liquor stores are the only places where non-Muslims can purchase alcohol. On Fridays and throughout the month of Ramadan, shop sales are prohibited. However, it is still being sold in the nation by various sellers, and as a result, more and more of our youth are developing alcohol dependence. The laws of Pakistan prohibiting the sale and consumption of alcohol are highlighted in the current review. Even though alcohol is prohibited in Islam, it is nonetheless entirely lawful in 56% of Muslim nations, while it is only partially and conditionally legal in 16% and 8% of Muslim nations, respectively [49,51].

According to data from 49 countries, there are just 16% of countries where alcohol is completely prohibited. It means that, in addition to being prohibited in Islam, alcohol is used openly in many Islamic nations, and this may be the primary cause of the rise in the intake of alcohol by young people. Underage drinking can cause a variety of physical and mental issues in the next generation. Therefore, strong laws should be implemented to prevent underage alcohol usage from spreading.

- **Eashwar VA, et al.** [61-66]: Their research reveals the drinking patterns of the study participants families. The study's participants reported that their fathers consumed alcohol in 33.3% of cases, their relatives (uncles or cousins) in 22% of cases, and their siblings in 19.3% of cases. the relationship between alcohol use and the participants' morbidity in the study. In contrast to the 36.2% of participants without hypertension, it was discovered that 51.4% of those with hypertension were current drinkers. An odd's ratio of 1.86 (95% CI = 1.11 -3.09) and statistical significance (P 0.05) were discovered for this connection. Compared to 34.5 % of the participants, around 59.7% of those with gastrointestinal issues such as gastritis and peptic ulcer disease were current drinkers. The odds ratio of 2. 82 (95% CI = 1.67 -4.76) and statistical significance (P 0.05) were reported for this association. It was reported that 83.3% of people receiving treatment for mental illnesses such as anxiety, sadness, and psychosis were also found to be regular drinkers. With an odd ratio of 8.28 (95% CI = 1. 79 -38.3), this connection was determined to be statistically significant (P0.05). Alcohol use and other morbidities such as Type 2 Diabetes Mellitus, cardiovascular illnesses, stroke, and musculoskeletal issues were not found to be statistically significantly correlated.
- **Desai ND** [57]: One of the top three causes of death among young people worldwide is suicide. According to

earlier research, medical school students had a higher risk of developing depression. Suicides and depression often go hand in hand. According to a suicide-behaviors model, medical training gives people the opportunity to turn suicidal thoughts into attempts by being accustomed to pain and having access to information about potential self-harm. An overall prevalence of 11% was found in their analysis of studies on suicide ideation among medical students from various nations. There should be an investigation because ideation is so prevalent. There aren't many studies on suicidal thoughts among medical students from poor nations. A few studies from India found that 8–15% of people have had suicidal thoughts. There is a need for thorough research on the factors that predict suicidal ideation. Furthermore, the majority of these researchers gathered their data in settings where participants might not feel secure disclosing personal information. In order to determine the incidence of suicidal thoughts and the risk factors associated with it among students at our medical college, we attempted to employ the web-based technique of gathering information from students.

- **Karpaga Lakshmi R** [1]: Alcohol use problems have an impact on the individual as well as their family. Our study sought to evaluate the carer burden associated with alcohol use disorder and to investigate the relationship between the degree of alcohol use and the burden because the majority of studies focused mostly on persons who drink alcohol and very few on carers [57,71].

In a tertiary care facility called Maduranthagam Taluk, researchers conducted a cross-sectional study on patients with alcohol use disorders and their carers who were chosen using practical sampling. After receiving the patient's and the carers' informed consent, clinical and socio-demographic information was gathered using a semi-structured proforma. The researcher gave the patient a dose of SAD-Q. GHQ-12 and FBIS were administered to the carers. SPSS 20 was used to analyze the data that had been entered into an MS Excel sheet. Of the 100 male patients and their careers in the sample, 93% were female. Most of the patients (66%), preferred to drink in the evening (74%) and with friends (60%), did so to unwind. Both a subjective and an objective load in FBIS scores are positively connected with the degree of alcohol usage. The length of alcohol usage is positively connected with both the felt family strain of the carers and the deterioration in the general health state. Alcohol consumption in a day and monthly alcohol spending was positively connected with carers' overall health status impairment, family burden ratings, and subjective burden.

- **Taneja N** [67]: A large percentage of medical students

were found to be engaging in such unacceptable behaviors as smoking cigarettes (83, 40.2%), drinking alcohol (98, 47.5%), and using illegal drugs (38, 18.4%), respectively. 4.8% of the 83 medical students who smoked cigarettes also smoked chewing tobacco and hookah, making up a total of 83 smokers. When compared to junior medical students, older students (including interns) had a higher prevalence of these practices ($P < 0.05$). (Figures 1 & 2) display the percentage (%) of medical students who have “ever” smoked, drank alcohol, or used non-prescription drugs by enrolment batch (year) and gender, respectively.

- **Kamil S, et al.** [57]: Less research has been done on alcohol usage among Indian doctors, but their drinking habits may have an impact on their health and, in turn, the health of their society. In Tamil Nadu, India, we conducted a cross-sectional online survey of allopathic physicians. They were questioned about their age, sex, region of residence, frequency of alcohol use, level of job satisfaction, readiness to treat alcohol-using patients, and other factors.

We divided the respondents into the three categories of “Never user,” “Occasional user,” and “Current user” based on how frequently they drank alcohol. The percentage of occasional users was 58%, current users were 24%, and never users were 18% among the 235 respondents. Male sex, sexual life, readiness to treat alcohol-using patients, and whether parents allow their children to drink when they are an adult were all positively correlated with alcohol use ($p < 0.05$). Male doctors were more likely to be heavy drinkers. Despite the fact that it interferes with their personal or professional lives, many of them were unwilling to give up their habit. Keywords: contentment, doctors, and alcoholism.

- **Govt. of India Rep Atul Ambekar** [20]: Household Survey (HHS) was carried out among a representative sample of the general population (10–75 years old) in each of the nation’s 36 states and UTs. This was mostly done to explore how commonly used, legal substances (like alcohol and cannabis) are used. At the national level, a total of 473,569 people were questioned while 200,111 families in 186 districts were visited. In 123 districts [8,20,56] a Respondent Driven Sampling (RDS) survey with a multiplier technique was carried out among the 70 293 users of illegal drugs. Since the HHS frequently understates the usage of illicit drugs, the primary goal of this study was to determine the incidence of illicit drug dependence. Alcohol, Cannabis (Bhang and Ganja/Charas), Opioids (Opium, Heroin, and Pharmaceutical Opioids), Cocaine, Amphetamine Type Stimulants (ATS), Sedatives, Inhalants, and Hallucinogens were among the substance categories evaluated. Between the ages of 10

and 75, 16.4 million people (or 14.6% of the population in the nation) currently drink. The prevalence of the illness is 17 times higher in men than in women. The most consumed alcoholic beverages in India are country spirits (sometimes referred to as “desi”) and spirits (often known as “IMFL” or “Indian Made Foreign Liquor”). 5.2% of Indians, or more than 5.7 crore people, are thought to be affected by hazardous or dependent alcohol use. Every third alcoholic in India needs help with alcohol-related problems. The states with the highest rates of alcohol use include Chhattisgarh, Tripura, Punjab, Arunachal Pradesh, and Goa. Arunachal Pradesh, Tripura, Andhra Pradesh, Punjab, and Chhattisgarh are among the states with a high prevalence of alcohol use disorders (more than 10%).

- **Ramamurthy** [16]: Policymakers and program planners responsible for allocating resources can benefit from analyses of the economic effects of alcohol consumption, misuse, and dependency. These studies can be a helpful guide for determining the scope of a healthcare issue and how it stacks up against others. The study was carried out in Tamil Nādu state place called Nemam, one of Sri Ramachandra Medical University’s field practice locations. Each panchayat assigned a different number to each male who was at least 18 years old. The necessary number of males was computed using these distinct values in accordance with the sampling method’s Probability Proportion. The people who were chosen at random using the approach were contacted personally, and they were informed about the study. This study provided a chance to evaluate the varied drinking levels present in a rural community and to illustrate the psycho-social and financial burdens that heavy drinker’s experience. The current alcohol intervention programs primarily target alcoholics who are dependent on and abuse alcohol. There are very few, if any, alcohol policies that concentrate on regular drinkers or drinkers in the transition period. Intervention policies at the primary care level will diagnose alcoholics as soon as possible and pave the path for efficient management.
- **Selkie EM, et al.** [63]: The results suggest that future longitudinal research on cyberbullying and its repercussions throughout late adolescence and young adulthood could help this population avoid developing related comorbidities. The relationship between participating in cyberbullying and either depression or problem drinking was examined using logistic regression. The findings showed that 27% of participants had been the victim of cyberbullying while they were in college, 17.4% of all participants had PHQ-9 depression scores of 10 or higher, and 37.5% had AUDIT drinking scores of 8 or lower. Participants’ chances of developing depression

were higher if they had ever engaged in cyberbullying [16,63].

Cyberbullying bullies were more likely to experience melancholy and problematic alcohol use. Bully/victims have a higher depression risk. The four most frequent forms of cyberbullying were also linked to an elevated risk of depression, with the risk of depression being highest in those who had received unwelcome sexual advances online or through text messages. Less is known about cyberbullying in college students than there is in middle and high school students, where it has been extensively studied. This cross-sectional study looked at the connection between depression or problem drinking among female college students and participation in cyberbullying. Online surveys measuring participation in cyberbullying behaviours were completed by 256 female students from four colleges. The Alcohol Use Disorder Identification Test (AUDIT) and Patient Health Questionnaire-9 (PHQ-9) were also completed by participants to measure problem drinking and depression symptoms, respectively.

- **Baba T** [59]: In the adolescent and adult age groups, respectively, 26.5% and 36.2% of pupils acknowledged abusing any substance. Age significantly increased the proportion of substance abusers ($p < 0.005$). Males were more likely than girls to abuse drugs (37.5% vs. 19.6%). Statistics showed a statistically significant variation in the frequency of substance addiction by gender groups. It was higher among urban students (34.1%) who belonged to the Muslim caste (31.7%). 32.0% of the students whose parents were educated had ever used drugs. Students from joint families (35.2%) and extended families (56.5%) had the highest rates of substance misuse, respectively. In order to lessen this enormous load, tailored treatments are required because substance abuse is prevalent among college students and causes serious issues in this population. The prevalence of substance misuse among college students over the course of their entire lives was determined to be 31.3%. When compared to their female counterparts, male students were much more likely to take drugs (37.5% versus 19.6%, respectively). Tobacco products (22.5%), solvents (10%), alcohol (6.2%), sedatives (5.9%), cannabis (4.4%), amphetamine products (2.1%), hallucinogens (0.5%), and cocaine (0.3%) were the most commonly abused substances. Substance misuse was found to be substantially correlated with age, gender, and family type ($p < 0.001$).
- **Brennan, et al.** [6]: 87 wives of non-problem drinkers and 87 wives of late-life problem drinkers were both investigated. Problem drinkers' spouses reported having low social and health-related functioning. Additionally,

they noted that problem drinkers came from less loving and supportive family backgrounds.

- **Babor, et al.** [3]: One of the most utilized psychoactive chemicals worldwide is alcohol in beverage form. People typically do not consider alcoholic beverages to be drugs due to their wide distribution and the ease with which they are used in several circumstances. However, due to its complex pharmacological properties, which include a wide range of psychoactive effects, societies around the world have surrounded alcoholic beverages with a variety of rules and regulations to prevent behavioral [3,6,59].
- **Hesselbrock, et al.** [2]: Carried out two significant linkage analyses to locate chromosomal areas with genes that affect the risk of alcohol dependence. The Collaborative Study on the Genetics of Alcoholism (COGA), the bigger of these two investigations, involved more than 9000 adults and nearly 1500 kids and teenagers. Chromosomes 1 and 7 each feature an area with one or more genes that raise the risk for alcohol dependence, according to genomic analysis of the COGA data.
- **Wechsler H** [60]: College campuses situated in the United States, a high prevalence of binge drinking. Programs designed to address this issue should concentrate on students who frequently binge drink, send them to treatment or educational opportunities, and highlight the harm they do to peers who do not binge drink. Nearly half (44%) of college students who participated in the poll admitted to binge drinking, with nearly a fifth (19%) of those students reporting frequent binge drinking. Regular binge drinkers are more likely than other students to suffer major health effects and other negative effects from their drinking habits. Since the start of the academic year, five or more drinking-related issues, including accidents and having unauthorized sex, have been experienced by nearly half (47%) of the frequent binge drinkers. The majority of people who binge drink do not see themselves as problem drinkers and do not seek alcohol treatment. Students who don't binge drink encounter issues because of binge drinking. Students who don't binge drink encounter issues because of binge drinking. Students who don't binge drink at schools with higher binge rates are more likely to have problems, such as being pushed, hit, or assaulted, or encountering an unwanted sexual approach, than students at schools with lower binge rates.
- **Jayaram** [5]: 30 controls and 30 wives of people with alcohol dependence syndrome had their personalities examined. GHQ and 16PF were the instruments used.

According to his research, the variable personality section of the 16PF questionnaire showed differences between the wives of people with alcohol dependence syndrome and control wives. On 8 of the 16 criteria, there was a big difference between the two groups. The wives of those with alcohol dependence syndrome displayed significant psychological issues on the GHQ, including trouble concentrating, sleep disturbance, concern, and ongoing stress. The sample size was modest. The researchers used a control group that was age matched. The usage of GHQ for wives of those with alcohol dependence syndrome was new at the time. The findings may have revealed a serious psychopathology trend among spouses of those with alcohol dependence syndrome.

- **O Farell, et al. [4]:** Conducted a study on sixty women who were either now or previously married to people with alcohol use to assess the stress that followed their marriage, the stress that their children experienced, and how close to divorce they were. Sociological research consistently found that the more difficult the marriage, the quicker the female was likely to file for divorce. Contrary to psychoanalytic assumptions, the personality disorders linked to early life stress did not correlate with the likelihood of a divorce.

The subscales of marital and childhood stresses that were produced through factor analysis showed a significant

psychosocial interaction; wives were more willing to put up with their husbands verbally abusing them and their children than their more outgoing peers [2,4,5,60].

Additionally, the likelihood of a marriage ending in divorce is directly correlated with the influence of others, positive views towards divorce, aversion to violence, and the lack of or poor quality of the early years of marriage.

State Wise Research Reports

Alcohol Consumption and its Associated Factors in Various Parts of India

- **Tamil Nadu:** Worldwide, 76.3 million people have diagnosable alcohol use disorders, according to estimates from the World Health Organization (World Health Organization, 2011). Alcohol is consumed by adults over 15 in the world at 6.13 liters annually per person. In India, 2.6 Liters are consumed annually per person. Numerous studies have been conducted across India to gauge the alcohol problem and determine the incidence of alcoholism. The National Survey of Drug Consumption in India assessed the prevalence of alcohol consumption across the country and showed that 21% of adult males were alcohol dependent [2]. According to a recent review of data from the National Family Health Survey (NFHS)-3, Tamil Nadu has a prevalence of alcoholism of 43.8%.

Year of study	Location	Author	Result
2023	Maharashtra	Panigrahi S.K, et al. [53]	Alcohol users affected by Diabetic 86%Majority of the user from 41-56 age. The researchers found that among people diagnosed with diabetes between the ages of 20 and 40 (approximately 90%), 57.1% of whom had the disease for more than ten years, the chance of developing diabetic feet is highest.
2022	Telangana Warangal Region	Syed W, et al. [55]	The use of alcohol among people with diabetes in this study is 63.2%, Alcohol consumption and disease-related injuries, it leads to esophageal cancer, liver cancer, cirrhosis of the liver, homicide, epilepsy, and motor vehicle accidents.
2021	Gujarat	Desai N D, et al. [57]	prevalence of suicide ideation is alarmingly high among medical students. Academic stress, previous experience of abuse, stress originating from family expectations, and strained relationships with friends and peers were found to be risk factors or predictors for suicidal ideation.
2020	Delhi	Taneja, et al. [56]	Prevalence of alcohol consumption more with smoking Medical college students smoking cigarettes (83, 40.2%), drinking alcohol (98, 47.5%), and using illegal drugs (38, 18.4%),Consumption of alcohol 19-21 aged 53%.Drinking in parties – 88%, Female and males affected by liver, lungs, diabetes, gastritis, and hypertension. Diseases
2019	Bhutan	Wangadi, et al. [44]	Prevalence of alcohol consumption- 30.9%The statistically significant association between alcohol use and male sex, widowhood, and tobacco consumption

2018	Indore Rural	Butee, et al. [36]	Prevalence of alcohol consumption- 38.2% The statistically significant association between alcohol use and education status, tobacco use, occupation, and positive family history of alcohol use. Reason for alcohol consumption: Enjoyment, Stress buster, Peer pressure.
2017	Andaman & Nicobar Island	Manimundra, et al. [37]	Prevalence of alcohol consumption- 35% A statistically significant association was found between the younger age group. Employment status and alcohol use ($P < 0.05$)
2016	Kerala	Vidhukumar, et al. [34]	Prevalence of alcohol consumption- 28.78% Hazardous alcohol use- 14% Alcohol dependence- 2.6%
2015	Bangladesh	Dewan, et al. [34]	Prevalence of alcohol consumption- 3.8% Heavy drinking- 20.2% Alcohol dependence- 0.7% Morbidity: Liver abscess- 79.7% Ischaemic heart disease- 38.7%
2014	Tamil Nadu Chennai	Laxmi, et al.	Prevalence of alcohol consumption- 42.65% Problem drinking- 38.8% Reason for alcohol consumption- To overcome stress or tiredness Quarrels among families because of alcohol use- 84.5% Associated morbidity: Gastritis- 33% Hypertension- 13.8% Diabetes- 9.5%
2013	Jammu & Kashmir	Baba T, et al. [59]	The prevalence of substance misuse among college students over the course of their entire lives was determined to be 31.3%. When compared to their female counterparts, male students were much more likely to take drugs (37.5% versus 19.6%, respectively). Tobacco products (22.5%), solvents (10%), alcohol (6.2%), sedatives (5.9%), cannabis (4.4%), amphetamine products (2.1%), hallucinogens (0.5%), and cocaine (0.3%) were the most commonly abused substances. Substance misuse was found to be substantially correlated with age, gender, and family type ($p < 0.001$).
2012	Kolkata	Ghosh, et al. [26]	Prevalence of alcohol consumption- 65.8% Mean age at initiation of drinking alcoholic beverages- 20.8+5.9 years. A statistically significant association was found between drinking alone, not being concerned about drinking habits habit and harmful/hazardous drinking patterns ($P < 0.05$).
2011	Punjab	Batta A [66]	Prevalence of alcohol consumption 67% Sadness/Anxiety 45.4%. Relaxation 59.8% Depression 32.5% Euphoria 65.32% Loneliness 29.7% Failed love affair 39 %
2010	Bangalore	Girish, et al. [24]	Prevalence of alcohol consumption 23.7% Preferred alcoholic beverage- Whisky and arrack. Binge drinking 29.65. Heavy alcohol users 17%. Reason for alcohol use – habituation and peer pressure

Table 1: According to estimates from the World Health Organization (World Health Organization, 2011). Alcohol is consumed by adults over 15 in the world at 6.13 liters annually per person. In India, 2.6 Liters are consumed annually per person.

World Report published about the Use of Alcohol Uses in India

The 2009 world report reveals that Alcohol use is on the rise in India, Alcohol addiction is becoming a significant public health issue in India since more than half of the country's alcohol consumers meet the criteria for hazardous drinking [17]. According to experts, India's reputation as a nation with an abstinence-based culture, particularly in relation to alcohol, is unjustified. The country is rapidly letting go of its inhibitions about alcohol as a lifestyle choice after witnessing a tremendous development of metropolitan pubs and nightclubs in recent years.

Fears have been raised about an unreported growth in alcohol abuse, not just among the lower classes but also in historically dry areas of society, because of this circumstance. The health minister has acknowledged the severity of the issue and has called for a program that will control alcohol sales and pricing. Although this action is commendable, according to many experts, it could not be sufficient to stop the negative impacts of the surge in alcohol consumption in society. Alcohol-related issues have already become a significant public health concern in India because of the growing production, distribution, and promotion of alcohol. In the last three years, alcohol sales have increased at an 8% annual rate. Officially, Indians continue to consume the least

amount of alcohol in the world; according to government data, only 21% of adult men and only 2% of women drink. However, up to one in five of this group, roughly 14 million people are dependent drinkers who need “help”.

According to specialists, there has been a dramatic shift in the patterns and trends of alcohol consumption in India. The main one is that people are starting to drink at younger and younger ages. Alcohol and Drugs Information Centre India, a non-governmental organization (NGO), conducted surveys in the southern state of Kerala and found that the proportion of the drinking population under 21 climbed from 2% to more than 14% over the previous 15 years. Alarming, the survey discovered that over the previous 20 years, the “average age of initiation” had decreased from 19 to 13 years.

The center makes note of a “powerful domestic and international alcohol lobby” that specifically targets young Indians. Flavored alcoholic beverages have been launched by the local industry to draw in young men and women who didn’t drink before. With its enormous untapped markets, multinational corporations have selected India as one of the most sought-after locations for investment.

Nowadays, energetic groups of young people having fun are seen in many alcohol advertisements. Although surrogate advertising for alcohol is widespread, Monika Arora, director of the NGO Health Related Information Dissemination Amongst Youth Student Health Action Network, claims that it is still allowed in electronic and print media. Apple juice and drinking water are packaged by alcoholic beverage makers. The key is to encourage young people to begin early and become lifelong consumers. Alcohol is increasingly praised in Bollywood films where good men drink.

There are now more Indian women who drink frequently and heavily due to the changing demographics of Indian consumers. Young women consumed comparable amounts of alcohol as young males on any normal drinking occasion, according to a recent study from the southern state of Karnataka.

The distinctive pattern of alcohol consumption in India is frequent and excessive drinking, which is of special concern and a key symptom of health hazards. The criteria for hazardous drinking, which is marked by bingeing and solitary consumption to the point of intoxication, apply to more than half of all drinkers. In addition, 95% of the beverages consumed in India are alcoholic.

Two-thirds of the alcohol consumed in India is not registered because it is either illegally produced locally or was smuggled into the nation, which presents a difficulty

for policymakers. According to WHO, employers in underprivileged, marginalized communities occasionally give employees alcohol as payment in lieu of cash. There have been several cases of fatalities, disabilities, and hospitalizations as a result of the use of fake alcohol across the nation.

The appalling lack of information and study on alcohol’s effects on public health, society, and the economy, according to experts, is one obstacle to creating a national alcohol strategy for India. Alcohol-related issues are known to cause more than a fifth of hospital admissions, 18% of psychiatric emergencies, more than 20% of all brain injuries, and 60% of all injuries reported to emergency rooms in India. Alcohol plays a significant influence in domestic violence; a 2004 WHO research found that one-third of violent husbands consume alcohol. Most of the violence occurred while people were drunk.

There is evidence to even imply that the poor are starting to consume more alcohol than they can afford, creating a lethal cycle of alcoholism and debt. One recent study by the National Institute of Mental Health and Neurosciences (NIMHANS) in households of rural, urban, town, and slum populations of 28,500 people in and around the city of Bangalore, Karnataka, found that patients with alcohol addiction spend on average more on alcohol each month than the average person makes in wages.

Although the Indian constitution lists the prohibition of alcohol as one of its guiding principles, control over alcohol legislation and taxation rests with the various states. Since alcohol taxes are the second-largest source of state revenue after sales taxes, most states are generally indifferent about stopping the supply of alcohol. Furthermore, there is a long history of the alcohol industry’s influence on politics in India, including party financing and the election of industry representatives. However, experts contend that India’s society is losing far more than it is gaining. According to Vivek Benegal, one of the report’s authors and assistant professor of psychiatry at NIMHANS, “Demand reduction strategies are not being looked at because of the political expediency surrounding prohibition.”

Researchers from NIMHANS have estimated that the direct and indirect expenditures associated with alcohol addiction are several times greater than the yearly health budget of Karnataka and more than triple the earnings from alcohol taxation based on their findings from the Bangalore study. They extrapolate their findings to all of India and determine that the 216 billion rupees in total alcohol revenue for the years 2003–2004 fell 28 billion rupees short of the overall expense of treating the impacts of alcohol addiction. These included the outright expense of medical care as well

as professional, economic, social, and legal considerations. The government's response to India's issue continues to place more emphasis on providing immediate assistance than on prevention. Because of this, an official policy only focuses on the 4% of adult males who are alcohol dependent and ignores the 20% of the population who are "at risk" of significant alcohol misuse.

According to experts, government thinking on how to best reduce the hazards associated with alcohol is 20 years behind that of cigarettes. The Indian government has provided funding for 90 counseling centers and 483 detoxification facilities as part of its national drug de-addiction program. Nearly fifty percent of attendees are receiving alcoholism treatment.

However, health professionals claim that the schemes' success is low and that states do not appropriately fund them. Government hospital doctors who treat addicts lament the "complete lack" of non-pharmacological therapy and education. According to Smita Deshpande, a senior psychiatrist working in a Delhi state hospital, "Once we've treated them there's no social worker or clinical psychologist to refer them to, so we just send them to AA (Alcoholics Anonymous)".

According to Rajat Ray, professor, and director of the National Drug Dependence Therapy Centre at the All-India Institute of Medical Sciences (AIIMS), the issue is that alcoholism therapy receives little attention from the Indian healthcare system. In the previous ten years, just 600 doctors have received training in treating alcohol dependence.

According to Ray, "most doctors view it as deviant behavior a hopeless condition that is unsatisfying to treat, so there is no motivation or financial incentive on doctors to work in this field."

The Indian government has established a goal to teach 1000 doctors, 500 nurses, and as many paramedics as possible to specialize in alcohol consumption treatment over the course of the next four years through AIIMS. To expand access to care, it is intended to distribute them across India's 560 district hospitals once they have received training. Three district training projects are currently being tested by Ray and his colleagues in Madhya Pradesh, Assam, and Uttar Pradesh.

But there is a rising lobby pressuring the health ministry to act. The answer, according to the Indian Alcohol Policy Alliance, an NGO working to minimize alcohol-related harm through evidence-based policy intervention, is to end the grip of state revenue departments, who perceive rising alcohol consumption as a benefit to treasury coffers.

It is putting pressure on the health ministry, which is run by a minister who has supported prohibition in some areas, to take the lead in enacting legislation that prioritizes public health over tax revenue. Health practitioners trying to combat alcoholism face "a very difficult situation" because there is no national alcohol policy, according to Ray. Although there are discussions going on, he claims that the real policy "is still in a formative state."

A 21st Century Alcohol Policy

A crucial first step in making this all happen is for health planners and other stakeholders to discuss and design an explicit and sensible alcohol policy suitable for India as it advances into the hazy future of the twenty-first century. To lessen the effects of the nation's defining pattern of risky alcohol use, a combination of (a) a population-based approach reducing overall consumption and (b) a high-risk approach focusing on high-risk behaviors is necessary. This necessitates an immediate paradigm shift in how we view alcohol usage towards one of public health. Health systems must be set up to detect alcohol-related harm earlier and prevent it, maybe through quick, inexpensive interventions that have been shown to be beneficial. This is true, especially at primary care levels. The social welfare system and the criminal justice system, which are frequently the first to encounter alcohol-related issues, should be made more aware of how to recognize and support people and families who are in danger from heavy drinking as well as serve as early referral systems. There are numerous chances for reducing alcohol-related issues through community education and the avoidance of drunk driving, domestic violence, public disorder, unintended injuries, and criminal damage.

To encourage alternatives to drink among the young and underprivileged, community programs supporting healthier lifestyles, mass media campaigns that highlight the benefits of moderate alcohol consumption rather than the risks of heavy consumption, and community development in general (job creation, skills development, and upgrading infrastructure or recreational facilities in communities with high levels of alcohol abuse) should be used. Community initiatives can also help to mold drinking attitudes, values, and conventions. Although the impact was only seen by their immediate followers, leaders of some Hindu religious groups have recently conducted several successful temperance initiatives.

The current legal framework governing limitations on marketing, availability regulations, and minimum drinking age must be strictly enforced. According to simulations, imposing a national legal drinking age of 21 years can reduce alcohol use by roughly 50-60% compared to prohibition. Delaying drinking by a year lowers the chance of being an

alcoholic and the risk of abusing alcohol for the rest of one's life. To lessen the mutually conflicting tendencies of profit and welfare, communication, and some degree of consensus between the health and revenue branches of government that is, federal and state agencies, which are essentially rival players are essential. A portion of the alcohol industry's substantial revenue should go toward research and treatment. The public health aspects of alcohol abuse and effective interventions are unquestionably the top priorities for alcohol researchers in India. Publicizing and publishing research findings are both crucial. Hopefully, the centralized value-added tax system that is soon to be implemented will lessen the disparities in state alcohol taxation and, as a result, interstate smuggling, which would negate the possible advantages of raising alcohol costs to discourage usage.

Volume-based taxation, which taxes beer and spirits equally and encourages excessive alcohol use, needs to be rationalized. Stricter regulation of the introduction of illegal (sometimes harmful) alcoholic beverages into the market is also necessary. Concerns about trade agreements also need to take public health concerns into account. The influence of prevention campaigns is expected to be constrained by transnational corporations' investments in alcohol manufacturing and distribution in India and the reduction of tariff barriers.

WHO Responses

The WHO strongly emphasizes the creation, collection, and dissemination of scientific data on alcohol use, dependence, and associated health and social implications. It also emphasizes developing, implementing, and evaluating cost-effective interventions for the harmful use of alcohol. By adopting the Global strategy to decrease the harmful use of alcohol in 2010, WHO Member States demonstrated an international agreement that decreasing the harmful use of alcohol and the accompanying health and social costs is a top public health goal. The Strategy offers recommendations for policy alternatives and interventions to reduce the harmful use of alcohol at the national and international levels. It also outlines the key elements of global action to support and supplement national-level efforts [21].

A new set of enabling and targeted recommended actions to lessen the harmful use of alcohol is provided by the update of the evidence on the cost-effectiveness of policy options and interventions implemented within the context of the Global action plan for the prevention and control of noncommunicable diseases 2013-2020. Increased taxes on alcoholic beverages, comprehensive restrictions on exposure to alcohol advertising across all media, and restrictions on the availability of retail alcohol are among the most economically advantageous measures or so-called best buys.

The demand for global information on alcohol consumption, alcohol-attributable and alcohol-related harm, as well as related policy responses, has significantly increased due to growing awareness of the impact of alcohol consumption on global health and an increase in international frameworks for action. WHO has created the Global Information System on Alcohol and Health (GISAH) to dynamically convey data on levels and patterns of alcohol consumption, alcohol's effects on health and society, and all levels of policy responses. To reduce harmful alcohol use in accordance with the SDG 2030 agenda's goals and the WHO Global Monitoring Framework for Noncommunicable Diseases, nations must work together, there must be effective global governance, and all pertinent stakeholders must be appropriately involved. The harmful effects of alcohol on one's health and society can be lessened by effective collaboration.

Reducing the Burden of the Harmful Use of Alcohol

Health, safety, and socioeconomic problems attributable to alcohol can be reduced when governments formulate and implement appropriate policies. Policymakers are encouraged to act on strategies that have been shown to be effective and cost-effective. These include:

- Regulating the marketing of alcoholic beverages (to younger people)
- Regulating and restricting the availability of alcohol.
- Enacting appropriate drink-driving policies.
- Reducing demand through taxation and pricing mechanisms.
- Raising awareness of the health and social problems for individuals and society at large caused by the harmful use of alcohol.
- Ensuring support for effective alcohol policies.
- Providing accessible and affordable treatment for people with alcohol-use disorders; and
- Implementing screening and brief intervention programs in health services for hazardous and harmful drinking.

Research Methodology

To accomplish the objectives of this study, citation analysis techniques have been applied to processing that was done utilizing a survey methodology. The information was provided by the Indian government's Record and made available offline and online by the appropriate publications to learn about alcohol abusers' levels of awareness, social and physical illness, organ damage, court actions the public authorities had taken against them, actions the jurisdictional authorities had taken against them, and the circumstances under which they had done so.

Depending on how significant each of the following considerations is: the objective, the target audience, judicial review, and legal permission. The analysis and evaluation of the outcomes took into account the implementation of various government actions and new rules evidence, awareness of alcohol drinkers, financial stability, awareness of binge drinking, use of alcohol, use of alcohol to promote new policies and laws, information from the Government Gazette or other official publications, and pertinent articles, case studies, conferences, and books.

Studies on alcohol-related research that were published between 2001 and 2023 have been mentioned by researchers. The researcher takes great pride in the fact that in the majority of papers on the protection of school and college students' lives and their future, each government authority must implement new rules through the appropriate legislators, and significant rules should be evaluated by the schools' and colleges' authorities for their future consideration. Many research articles focused on students' drinking patterns and various incidents, including issues with binge drinking, heart disease, diabetes, sugar complaints, gastric complaints, obesity, hypertension, financial depression, trafficking, offenses, and other issues.

Purpose of the Study

This research examines the nature and drinking habits of the students at various events with their friends in India as well as its effects on the business and economic systems. It also draws attention to new problems that need to be addressed before existing legal and regulatory requirements can be reorganized.

The Objective of the Study

For this study, the following hypotheses have been developed: Students are eager to make use of their rights and opportunities to consume alcohol at various gatherings. They are aware of the negative effects of drinking, but they didn't care where the festivities took place. The federal and state governments take the necessary action to ban alcohol and other related, illegal drinks up to the college level of education. Academic institutions take care of their uplift and progress in a natural method to avoid alcohol and other connected drinks, tobacco, and smoke and exhibit the jurisdictional activities with some evidence to advance their research and future development. Professionals and non-profit organizations are willing to uphold court decisions and every nation's constitution. Numerous awareness programs for students, the public, and other ordinary people might be offered or carried out by universities and academic institutions. They must provide services on many

different levels, from research and funding organizations to educational institutions.

Data Analysis and Hypothesis Formation

In order to highlight novel services, the researcher identified the top 50 pages of Google and Semantic Scholar's documents out of 500 research papers, conference proceedings, and international university proceedings that were published in various publications i.e., NHI, PubMed, Francis and Tylor, and other open-source publications.

96% of the authors or researchers of 500 studies agreed that there were safeguards against alcohol consumers and their traits. The majority of students (68%) who continue to drink and smoke do so because of the installation of new rules and their desire to become addicted. State governments, federal governments, higher education institutions, university authorities, legislative authorities, jurisdictional authorities, and NGOs give implementation to create new, innovative laws for the future to take care of these and follow the method effectively.

The researcher's conclusion from this study on alcohol consumption and physical illness in India is that it is the Indian government's duty to prevent alcohol from reaching high school and college students. This responsibility will continue to be crucial in protecting the next generation, and the public, and in meeting the expectations of the public and parents of students.

Recommendations for the Future

- Control to consume alcohol.
- Control the media's advertising for alcohol consumption.
- Offer programs to raise awareness of the negative impacts of alcohol use.
- Give appropriate instructions and discourage to stop consumption of alcohol to educate school children.
- Implement new educational initiatives to increase student knowledge of alcohol consumption and its side effect through university-level education institutions.
- Adopt new guidelines and restrictions to limit alcoholic beverages.
- The government will implement new legislation policy to prohibit alcohol consumption through NGOs and other media.
- Government to create a new department like the alcohol rehabilitation board.
- State governments to design through their appropriate legislative authorities' new legislative rules to prohibit alcoholic drinks within their legislative area.
- State legislators to launch and implement new policies

to promote the consumption of and encourage the use of natural and traditional drinks by putting in place substitutes for alcohol.

- A final recommendation is made to the state and federal governments to stop acquiring alcoholic beverages from abroad right now.
- Impose new regulations on heavy drinkers and advise their transfer to treatment facilities.

Data Analysis

Alcoholic Beverage Consumption in India

In India, there were roughly five billion liters of alcoholic beverages consumed in 2022, and by 2024, that number was predicted to rise to about 6.21 billion liters. An increasing urban population and higher levels of disposable money are just two of the reasons why there is a growth in the consumption of these drinks.

Alcohol Market in India

Two men sold various types of alcohol on the Indian market. India produced both domestic alcohol (IMIL) and imported alcohol (IMFL). In addition, there was imported beer, wine, and other alcoholic beverages. Much of the market was consumed by spirits, which had the biggest market share.

S.No.	Year	In Billion Liters
1	2020	4.86
2	2021	5.31
3	2022	5.63
4	2023*	5.91
5	2024*	6.21

Table 2 : In India, there were roughly five billion liters of alcoholic beverages consumed in 2022, and by 2024.

Young Consumers

When compared to other nations, such as the United States, India's average adult alcohol consumption was noticeably lower, but young Indians were more likely to be heavy drinkers. Men were significantly more likely than women to drink, and they were also more likely to drink infrequently. A study found that despite drinking being against the law, more than 88% of Indians over 25 still buy or consume alcoholic beverages. This occurred despite restrictions on sales and alcohol bans in various states across the nation. *Estimate Survey. Citation Format. Sources from Statista Figures include the consumption of beer, wine, spirits, and other alcoholic beverages.

S.No.	Variables	%
1	Age Groups in Years	
	18-25	1.23
	26-45	44.85
	46-65	47.32
	65 and above	6.58
2	Education level	
	Illiterate	23.04
	Primary	10.75
	Middle	22.63
	Secondary	18.93
	Higher Secondary	10.28
	Degree	4.52
	Postgraduate	0.82
Pondicherry Jurisdictional Area Research in 2017		

Table 3: Alcohol User's Age Wise with their Educational Level.

S.No.	Variables (in years)	%
1	Fun /desire to taste	44.4
2	Pain/tiredness	51.2
3	Tragedy in family	4.4

Table 4: Pattern Reason for Alcohol Consumption.

S.No.	Frequency	%
1	Daily	24.7
2	Weekly	26.3
3	Monthly	28
3	Occasionally	21

Table 5: Frequency of Drinking.

The average first drinking age was 23.63 years, which is 6.01 years younger than the national average. Many alcohol users (92.2%) were between the ages of 26 and 65. The majority of them (53.9%) drank alone outside of their houses at places like pubs and restaurants in order to relieve discomfort or fatigue. Brandy was the most popular Indian-made foreign liquor (IMFL), followed by rum and whisky (73.1% of consumers' favourite drinks). 91.0% of the users drank moderately (3-6 pegs in a sitting), and 41.2% had a medium level of risk from alcohol consumption, according to the AUDIT score.

More than half of the drinkers frequently argued with their neighbours and other family members and had difficult relationships with them. For 27.7% of users, the inability to fall asleep without alcohol was their most prevalent health issue, while epileptic fits and mental issues were the least frequent (6.7%).

Alcohol is one of the risk factors for several chronic diseases, including diabetes mellitus, hypertension, and acid dyspepsia, which together accounted for 86.0% of alcohol users. 10% of all alcohol consumers had pulmonary TB as well.

Alcohol Consumption in India

The ninth-largest user of all types of alcohol worldwide is India. It is, after China, the second-largest consumer of alcoholic beverages (whisky, vodka, gin, rum, tequila, and liqueurs) [18]. India has increased its alcohol consumption by 11% since 2017 to around 663 million litres. India is the world's largest whisky drinker, consuming around three times as much as the US, which comes in second. Today, India sells about one of every two bottles of whisky imported worldwide. According to the NFHS Survey 2021, 10% of all adults in India (15 years of age and above) use alcohol. According to the results of the National Family Health Survey-5, alcohol consumption is 1.3% for adult women and 18.8% for adult males who are 15 years of age or older. Source: NFHS (National Family Health Survey-5).

Alcohol Consumption Trends

S.No.	States / Union Territories	Women % (15+years)	Men %(15+Years)
1	Andaman & Nicobar	5	39.1
2	Andhra Pradesh	0.5	23.3
3	Arunachal	24.2	52.7
4	Assam	7.3	25.2
5	Bihar	0.4	15.5
6	Chandigarh	0.3	18.6
7	Chhattisgarh	5	34.8
8	D & N	1.1	27.8
9	Delhi	0.5	21.6
10	Goa	5.5	36.9
11	Gujarat	0.6	5.8
12	Haryana	0.3	16.1
13	Himachal Pradesh	0.6	31.9
14	Jammu & Kashmir	0.2	8.8

According to the most recent study, Indian males who drink are doing it more frequently. 15.4% of the males who admitted to drinking stated they did so almost daily. According to the study, 16.9% of women claimed they drank "almost every day" in the most recent survey.

S.No	Alcohol Drinking Frequency	Men	Women
1	Almost every day	15.40%	16.90%
2	Once a week	43.50%	36.60%
3	Less than once a week	41.00%	46.60%

Table 6: Males who drink are doing it more frequently. 15.4%, 16.9% of women claimed they drank "almost every day" in the most recent survey.

Alcohol Consumption by the State in India

According to NFHS-5, only 1.3% of Indian women drink alcohol on average, compared to 18.8% of men. In India's eastern and northern states, both men and women drink a lot of alcohol. States with high alcohol consumption among men include Arunachal Pradesh, Telangana, Sikkim, Manipur, Goa, and Jharkhand. All Northeastern states, including Telangana, have high rates of female alcohol consumption. Arunachal Pradesh has the highest alcohol consumption rates for males (52.7%) and women (24.2%) out of all the states. Sikkim (16%) is Arunachal Pradesh's closest rival among women, whereas Telangana (43% of men) is its closest rival among men. In addition to Arunachal and Telangana, the Chhota Nagpur region in Jharkhand and Odisha, as well as the upper Brahmaputra region of Assam, have higher rates of male alcohol use (40% and above).

15	Jharkhand	6.1	35
16	Karnataka	0.9	16.5
17	Kerala	0.2	19.9
18	Ladakh	3.8	23.6
19	Lakshadweep	0.3	0.4
20	Maharashtra	0.4	13.9
21	Manipur	0.9	37.5
22	Meghalaya	1.5	32.4
23	Mizoram	0.9	23.8
24	Madhya Pradesh	1	17.1
25	Nagaland	0.9	24
26	Odisha	4.3	28.8
27	Puducherry	0.3	27.7
28	Punjab	0.3	22.8
29	Rajasthan	0.3	11
30	Sikkim	16.2	39.8
31	Tamil Nadu	0.3	25.4
32	Telangana	6.7	43.3
33	Tripura	6.2	33.1
34	Uttar Pradesh	0.3	14.6
35	Uttarakhand	0.3	25.5
36	West Bengal	1.1	18.1
Source: Data from National Family Health Survey-5 Carried out from 2019-2021			

Table 7: Alcohol Consumption by the State in India.

Top States in Alcohol Consumption

According to the most recent Reserve Bank of India data, Uttar Pradesh receives most of the nation's excise taxes, which are primarily imposed on alcoholic beverages. Karnataka, which has the second-largest excise income of Rs 20,950 crore, comes in second to Uttar Pradesh with

approximately Rs 31,500 crore. Maharashtra ranks third in terms of income with 17,477.40 crore. Sales of alcoholic beverages, as well as land registration and stamp duty, make up much of the own-tax revenue. The GST incorporates the remaining taxes. Therefore, greater excise taxes are a sign of more alcohol sales revenue.

S.No.	States / Union Territories	Excise revenue Rs in Crores	Share in revenue %
1	Uttar Pradesh	31,517.40	21.8
2	Karnataka	20,950	20.6
3	Maharashtra	17,477.40	8.3
4	Madhya Pradesh	11,878.70	19.9
5	Tamil Nadu	7,262.30	5.8

Table 8: Top States in Alcohol Consumption.

Women Who Drink Alcohol in the Top 10 States

According to NFHS (National Family Health Survey-5) data, 1.3% of adult women between the ages of 15 and 49 use alcohol. Following NE state in terms of the proportion of female alcohol consumers is Telangana, then Jharkhand. In North and South Indian States, it is the least.

S.No.	States / Union Territories	Women % (15+years)
1	Arunachal	24.2
2	Sikkim	16.2
3	Assam	7.3
4	Telangana	6.7
5	Tripura	6.2
6	Jharkhand	6.1
7	Goa	5.5
8	A & N	5
9	Chhattisgarh	5
10	Odisha	4.3

Table 9: 1.3% of Adult Women between the ages of 15 and 49 use alcohol.

Men Who Drink Alcohol in the Top 10 States

Alcohol Use among adult men is 18.8%, according to NFHS data. The NE States, Telangana, and Goa are the states with the highest proportion of male alcohol consumers. Himachal Pradesh has the greatest alcohol consumption among men among the North Indian States, followed by Uttarakhand (25.5%). Telangana in southern India consumes the most alcohol (43.3%), followed by Tamil Nadu (25.4).

S.No.	States / Union Territories	Men % (15+years)
1	Arunachal	52.7
2	Telangana	43.3
3	Sikkim	39.8
4	Manipur	37.5
5	Goa	36.9
6	Jharkhand	35
7	Chhattisgarh	34.8
8	Tripura	33.1
9	Meghalaya	32.4
10	HP	31.9
Sources: NFHS-5		

Table 10: The NE States, Telangana, and Goa are the states with the highest proportion of male alcohol consumers.

India's Most Popular Alcoholic Beverage

Contrary to popular belief, Indians do not often consume and adore whisky. Even while nearly half of urban Indians have tried whisky, according to the most recent YouGov survey, only 16% of them say it is their favorite beverage. More than half of respondents (56% to 55%, respectively) reported trying beer or wine, and almost a quarter (24% and 22%, respectively) said it was their favorite alcoholic beverage. While beer is preferred by younger folks (GenZ & Millennials), it is preferred by males, particularly GenX respondents. According to the survey data, beer and wine drinkers are more loyal to their favorite brands than whisky drinkers.

S.No.	Drinks	Tried %	Most Loved %
1	Beer	56	24
2	Wine	55	22
3	Vodka	47	11
4	Whiskey	46	16
5	Rum	38	7
6	Breezer	32	7
7	Brandy	32	2
8	Gin	25	2
9	Tequila	24	2
10	Cocktails	18	2
11	Liqueurs	11	1
12	Cider	10	1
13	Other	3	1
Sources: YouGov's Latest survey			

Table 11: India's Most Popular Alcoholic Beverage.

Most popular Beverage among Indian Alcohol Consumers Now

Based on a study called the National Survey on the Amount and Pattern of Substance Use in India. The most popular alcoholic beverages among current users were spirits or "Indian Made Foreign Liquor" approximately 30% and country spirits or "desi sharb" about 30%. At the national level and in practically every state, there was a tiny percentage of people who reported drinking low-alcohol beverages like beer and wine the majority of the time. It was interesting to see that alcohol users claimed a preference for homemade rice beer in the northeastern regions, but Bihar recorded the highest percentage of 'kacchi sharb' consumption at 30%.

S.No.	Beverage Types	Total of %
1	Spirits (IMFL)	30
2	Country Liquor	30
3	Strong beer	12
4	Light beer	9
5	Home-brewed alcohol	11
6	Wine	4
7	Illicit liquor	2
8	Any other	2

Table 12: Source: Ministry of Social Justice and Empowerment, Government of India report National Survey of Extent and Pattern of Substance Use in India.

Top States with the Most Alcohol Problems

According to a survey, approximately 2.7% of the country's 2.9 crore people—or individuals—are affected by alcohol dependence. This is according to the National Survey on the Amount and Pattern of Substance Use in India. However, there are considerable differences between states. Tripura has the greatest rate of alcohol dependence (13.7%), followed by Arunachal Pradesh (7.2%), Chhattisgarh (6%), Punjab (6%), and Andhra Pradesh (6%). In different states, the percentage of current drinkers who are also alcohol dependent varies from 4.7% to 48.3%. Approximately 18.5% of current drinkers in the country do so in a dependent manner. In contrast, more than 40% of alcohol consumers in Puducherry (48.3%), Punjab (44%), Andhra Pradesh (43.5%), and Karnataka (40.3%) use the drug in a dependent manner.

11	State/UT	Numbers in lakhs
Liqueurs	Uttar Pradesh	160
11	Andhra Pradesh	47
3	Tamil Nadu	37
4	Madhya Pradesh	31
5	Maharashtra	30
6	West Bengal	27
7	Punjab	27
8	Chhattisgarh	24
9	Odisha	21
10	Karnataka	20

Table 13: Source: National Survey on Extent and Pattern of Substance Use in India, Ministry of Social Justice and Empowerment, Government of India.

The overall prevalence of current alcohol use is lower in the states where it is illegal to consume alcohol, but a significant portion of alcohol users in these states—Gujarat

30%, Bihar 16%, Manipur 17%, and Nagaland 20%-fall into the category of harmful or dependent alcohol use. About 5.7 crore people, or 5.2% of the population in the country between the ages of 10 and 75, need assistance with their alcohol use disorders, which refer to patterns of hazardous or dependent alcohol consumption.

Social and Health Problems with Physical Illness and Disorder Among Alcohol Users

Social and Health Problems

Based on physical illness, organ disorder, and other disorders among alcohol users, the health issues of the clients are divided. Two categories are used to separate the major health issues. The first is a societal issue, while the second is a serious health issue. 29.6% of social difficulties are attributable to arguments that the intoxicated person had with family members or neighbors. Second, based on the consumption of alcohol, seven acute health issues are calculated. Slurred speech and frequently forgetting daily tasks are the main issues for 15% of alcohol drinkers. Many of them struggled to fall asleep without alcohol virtually every day or even frequently.

Social Repercussions of the Alcohol Problem

Alcohol usage has an impact on not only the individual but also on his family members in some way. The children of alcoholic fathers will have strained relationships with their family members, which can affect their psychological well-being. The person intoxicated may engage in domestic violence with his family members; may deplete the family's savings, which can have a negative impact on the education of his children. In a study conducted in Bangalore by Gururaj, et al., it was discovered that alcohol users were 2.5 times more likely to emotionally abuse their spouse, 23.3% more likely to physically abuse their spouse, and 7.8% more likely to physically abuse their spouse severely enough to cause damage. In research by Markowitz et al., 20% of women reported experiencing domestic violence, and they cited their husbands' drinking habits as the main contributing factor [25].

Physical Illness, Alcohol Use Disorder, and Other Diseases

In his office on the day, Union Minister for Social Justice, and Empowerment Shri Thaawarchand Gehlot received the report "Magnitude of Substance Use in India" from the National Drug Dependence Treatment Centre (NDDTC) of the All-India Institute of Medical Sciences (AIIMS), New Delhi, which was funded by the Ministry of Social Justice and Empowerment. Shri Vijay Sampla, Minister of State for

Social Justice and Empowerment, was present. Through the NDDTC of AIIMS, New Delhi, the Ministry of Social Justice and Empowerment carried out a “National Survey on Extent and Pattern of Substance Use in India” in 2018, which provides data at the national and state levels. A group from the NDDTC under the direction of Dr. Atul Ambekar performed the survey. Speaking at the event, Shri Gehlot stated that guidelines and an action plan to combat the problem of drug misuse will be developed after consultation with the State governments and all other stakeholders, including NGOs and Drug De-addiction centers. He said that the survey, which has now been formally issued, was the first of its kind to be done both at the national and state levels [20].

Speaking on the occasion, Shri Gehlot said that the State governments and all other stakeholders including NGOs and Drug De-addiction centres will be consulted to formulate guidelines and action plans to counter the menace of drug abuse. He said that this Survey conducted at the National level as well as at the State level is the first of its kind which has been officially released today. The United Nations Office on Drugs and Crime performed the most recent national survey on the extent, pattern, and trend of drug addiction in 2000–2001 under the Ministry of Social Justice and Empowerment’s sponsorship. In 2004, the report was released. The Survey did not provide any estimates at the State level, though. In this survey, two data collection techniques were combined.

Household Survey (HHS)

Household Survey was carried out among a representative sample of the general population (10–75 years old) in each of the nation’s 36 states and UTs. This was mostly done to explore how commonly used, legal substances (like alcohol and cannabis) are used. At the national level, a total of 473,569 people were questioned while 200,111 families in 186 districts were visited.

In 123 districts, a Respondent Driven Sampling (RDS) survey with a multiplier technique was carried out among the 70 293 users of illegal drugs. Since the HHS frequently understates the usage of illicit drugs, the primary goal of this study was to determine the incidence of illicit drug dependence.

Alcohol, Cannabis (Bhang and Ganja/Charas), Opioids (Opium, Heroin, and Pharmaceutical Opioids), Cocaine, Amphetamine Type Stimulants (ATS), Sedatives, Inhalants, and Hallucinogens were among the substance categories evaluated.

The following are the main conclusions of this survey both at the national and state levels:

Alcohol

- Approximately 16.4 million persons (or 14.6% of the population in the country) between the ages of 10 and 75 are current drinkers. Men are 17 times more likely than women to have the condition.
- Country spirits (also known as “desi”) and spirits (sometimes known as “IMFL” or “Indian Made Foreign Liquor”) are the most popular alcoholic beverages in India.
- It is estimated that hazardous or dependent alcohol usage affects 5.2% of Indians or more than 5.7 crore people. In India, every third alcoholic requires assistance for alcohol-related issues.
- Chhattisgarh, Tripura, Punjab, Arunachal Pradesh, and Goa are the states with the highest rates of alcohol consumption.
- States with a high prevalence of alcohol use disorders (greater than 10%) include Arunachal Pradesh, Tripura, Andhra Pradesh, Punjab, and Chhattisgarh.

a) Medical Consequences of Alcohol Use

The stomach and small intestine absorb alcohol when alcoholic beverages are ingested. To every organ in the body, it is delivered by blood flow. Ninety-five to ninety-eight percent of the alcohol taken is eliminated through the kidneys after being quickly absorbed by the liver [25]. In a study conducted by Gururaj, et al. it was found that hospital admission rates for alcohol-related problems were rising, with 20% to 30% of admissions resulting from direct or indirect problems brought on by alcohol consumption. This increase in hospital admission rates was attributed to the rise in alcohol consumption across the nation.

b) The Various Medical Complications Because of Alcohol Consumption are

- **GI or Gastrointestinal Complications:** Alcohol’s direct impact on the stomach’s lining can cause acute gastritis and manifest as vomiting, which is typically linked to heavy drinking. Damage that occurs repeatedly may result in hyperacidity and peptic ulcer disease. One of the main causes of hemorrhagic gastritis is alcohol. The most frequent side effect of chronic alcohol use is alcoholic liver disease (ALD).
- c) **Cancer:** A woman’s risk of breast cancer increases by 1.4 times with every 1.5 drinks she consumes. Four drinks a day increase the risk of oral and oesophageal cancers by roughly three times, and the risk of rectal cancers by 1.5 times, for both sexes. Alcohol was found to significantly increase the incidence of malignancies of the pharynx, oral cavity, esophagus, and larynx in a study conducted by Bangardi, et al. [32].
- d) **Genitourinary System Modifications:** Short-term, low-dose ethanol use can both boost male erection capacity

and increase sexual drive. A significant minority of chronic alcoholic males have irreversible testicular atrophy with shrinkage of seminiferous tubules even in the absence of liver damage, leading to a decrease in ejaculate volume and a low sperm count. According to a study by Chandra, et al. alcohol addiction is disproportionately strongly associated with high-risk sexual conduct and HIV infection [33].

- e) Muscular Changes:** Acute alcoholic myopathy, which can cause skeletal muscle weakness in up to two-thirds of alcoholics, may become better with abstinence but is not completely cured. Lower bone density is one of the skeletal system's effects of alcohol use. According to a study by Venkat, et al. people with chronic drinking experience lower bone density and avascular necrosis of the femoral head [29].
- f) Neurological Issues:** After ceasing alcohol use, the short-term consequences of alcohol intake, such as blackouts, blurred vision, memory loss, and decreased reaction times, can subside. Chronic alcohol usage has been linked to the development of alcoholic tremors, myopathy, Wernicke's encephalopathy, and cerebellar degeneration, according to research by Peng, et al. [35].
- g) Psychiatric Side Effects:** Alcohol consumption has long been used as a treatment for mental health issues like anxiety and depression. While initially helping to some extent, alcohol starts to deplete the neurotransmitter serotonin in the brain, which causes depression and anxiety. As a result, the need to drink more to treat depression grows. The risk of suicide, personality problems, and risk-taking behaviors can all rise because of chronic use [35]. In a general hospital in India, alcohol-related issues accounted for 17.6% of mental emergencies [41].
- h) Other Problems Aroused by Alcohol Drinkers:**
- **Alcohol Advertisements:** Alcohol advertising was outlawed in India by the Cable Television Network (Regulation) Amendment Bill. Nevertheless, private channels frequently allow alcohol businesses to advertise using dummy products, such as brand names for soda, water, or music. But as the target consumer switches from viewing television to using smartphones, the booze industry has recently started to invest in online video marketing [45].
- i) Traffic Collisions:** Road traffic accidents that happen because of driving while intoxicated are one of the biggest issues with alcohol intake. Due to alcohol usage, both emerging and wealthy nations record high incidences of traffic accidents. The National Institute of Mental Health and Neurosciences (NIMHANS) revealed that roughly 28% of injuries caused by automobile accidents were directly linked to alcohol in 12 major hospitals in Bangalore. According to the roadside poll, up to 40% of the drivers were intoxicated by alcohol [31]. According

to a study by Aditya et al., alcohol usage contributed to 20% of fatal road traffic accidents. 38% of those alcohol consumers had blood alcohol concentrations (BAC) that were illegal⁴¹. Alcohol misuse was found to be recorded in more than 20% of traumatic brain injuries, according to a study by Gururaj [33]. Tamil Nadu has the most drunk driving accidents nationwide, per the most recent data (2015) given by the National Crime Records Bureau. According to a study by Korlakunta, et al. alcohol-dependent people exhibit high-risk behaviors more frequently, with car accidents being the most common occurrence [46].

- j) Use of Alcohol and Legal Issues:** Legal issues are a significant area where alcohol consumption causes challenges. Sexual and physical assault, rape, the exploitation of women in commercial sex work, and murder are crimes that are committed after drinking. The Prohibition Act, Gambling Act, Psychotropic Substance Act, and Excise Act are the four principal acts that cover the many offenses associated with alcohol drinking, according to the National Crime Records Bureau of India. However, the primary reason that the public nuisance brought about by alcohol consumption remains unnoticed is that those acts are categorized as petty crimes and thus are frequently ignored or underappreciated [41-46].
- k) Drunk and Drive (Motor Vehicle Act):** Because of the increase in reaction time, overconfidence, diminished muscle coordination, impaired attention, and lower auditory and visual acuity that occurs when a person drinks alcohol, there is a slow and progressive loss of driving ability. This is referred to as intoxicated driving. In India, inebriated driving is prohibited by law. The BAC thresholds are set at 0.03%. According to the Motor Vehicle Act, anyone whose BAC levels are determined to be higher than this limit is charged with a first offense and faces a maximum fine of INR 2,000 to 10,000 as well as up to 4 years in prison [23].

Findings & Key Facts

The harmful use of alcohol is a causal factor in more than 200 disease and injury conditions

- Worldwide 3 million deaths every year result from the harmful use of alcohol. This represents 5.3% of all deaths.
- Overall, 5.1% of the global burden of disease and injury is attributable to alcohol, as measured in disability-adjusted life years (DALYs).
- Beyond health consequences, the harmful use of alcohol brings significant social and economic losses to individuals and society at large.
- Alcohol consumption causes death and disability relatively early in life. In people aged 20–39 years,

approximately 13.5% of total deaths are attributable to alcohol.

- There is a causal relationship between the harmful use of alcohol and a range of mental and behavioral disorders, other noncommunicable conditions, and injuries.

Conclusion

Alcohol consumption is typically widespread in Indian society and has wide-ranging negative effects including severe physical health outcomes including liver cirrhosis, cardiovascular disease, and diabetes as well as causes for absence, traffic accidents, and other emotional and social problems. It's important to investigate the higher alcohol consumption in some regions of the country. According to the National Drug Survey 2019, the prevalence of alcohol use among people aged between 10 and 75 is 27.3 percent, with 43 percent of those people regularly consuming more than four mixed drinks in a single event. The challenges related to alcohol use will likely worsen in the upcoming years due to the absence of a general well-being-driven alcohol strategy, ongoing abuse of existing laws, and a more pronounced influence of the cycle of globalization, urbanization, and migration. It is crucial to have different policies in place to prevent and manage alcohol-related problems, especially in temporary and disadvantaged areas.

This study provided an opportunity to evaluate the diverse drinking habits prevalent in a rural community and to illustrate the psychological, socioeconomic, and economic burdens that heavy drinkers' experience. The focus of current alcohol intervention programs is on those who abuse and are dependent on alcohol. Alcohol policy is directed at regular drinkers or drinkers in the transition stage. To make matters worse, there are no intervention policies in place at the primary care level that would allow for an early diagnosis of alcoholics and appropriate management. It is imperative to create strategies to successfully address the issues caused by alcohol. It is essential to develop a public health strategy that combines cutting-edge screening technologies and affordable early intervention techniques to successfully tackle alcohol-related issues. The social welfare system and the criminal justice system, which are frequently the first to encounter alcohol-related issues, should be made more aware of how to recognize and support people and families who are in danger from heavy drinking as well as serve as early referral mechanisms. There are many ways to reduce alcohol issues, including through community education and the avoidance of drunk driving, domestic violence, public disorder, unintended injuries, and criminal damage. The law already in place governing restrictions on marketing, availability, and minimum drinking ages, as well as restrictions on advertising, must be strictly implemented

[68-71].

Thus, the researcher requested that all state and federal laws be reviewed in order to put into effect a new policy that would prevent alcohol from reaching high school students and college students and require the use of strict measures by government authorities and screening by the jurisdictional responsibility in order to safeguard and keep away from future generations of high school to college students. All higher educational authorities ensure that they offer awareness services through educational institutions and Non-Governmental Organizations and that they allow mandatory funding to their staff's activities involving the student categories.

They inadvertently attempt to kill national development and harm the future of the country if they fail to protect these types of facilities for these future generations. Because alcohol causes numerous difficulties for people from head to toe and because the diseases it causes are difficult for doctors to diagnose, it is the government's mandatory duty to keep spirits and alcoholic products out of the hands of children and the general public [72-77]. Society is also unable to defend itself through the use of medications. Additionally, pharmaceutical corporations are unable to produce the necessary pharmaceutical items. So, this booze sickness may affect the entire country. Prevent alcohol outreach to youth, seniors, and future initiatives.

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