

Prevalence of Alcohol use among the Indian Population and its Impact on Public Health

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Abstract

In the discussion on substance abuse alcohol is reported as one of the most commonly used substances. The public health perspective states alcohol is a major player not only leading to disability but also death and disease. The article aims to provide an insight into the overall understanding of the effect of alcohol consumption on the peoples' lives in India. It also describes the burden of alcohol consumption and its consequences. This article is based on secondary data, the secondary data are collected from different source such NFHS, published research papers and reports.

Keywords: Alcohol consumption, alcohol-related consequences, morbidity, mortality, risk factors, social-economic and cultural factors

Introduction

Alcohol, especially its hazardous use has been notorious for being one of the leading risk factors resulting not only in non-communicable diseases (NCDs) but also related to mental health, injuries and violence [13]. It must also be kept in mind that alcohol and tobacco are preventable health risk behaviours [10]. Hence, while alcohol use causes considerable

health loss and is an important public health concern with effective interventions and regulations its negative health impact can be controlled or even reduced.

Celebrating an event, festival and joyful activities have been associated with drinking alcohol. Even after work many associate relaxation and peacefulness with drinking alcohol[4]. According to World Health Organisation (WHO,2014), the overall

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per capita intake of alcohol is 6.2L of alcohol per year by individuals above 15 years of age which equals almost 13.5 g of pure alcohol per day. One of the main risk factors for premature mortality and disability is consumption of alcohol, which is also leading to almost 3 million deaths per year globally. Harmful alcohol use is responsible for 7.1% (males) and 2.2% (females), which contributes to around 5.1% of the global disease burden [3].

Alcohol has been said to have an adverse impact on nearly 13 out of the 17 Sustainable Development Goals (SDGs) and directly impacting many health-related targets within the SDGs ranging from infectious diseases (HIV, hepatitis, TB), to NCDs, maternal and child health, etc. (WHO, 2020). There have been fair amount of deaths recorded as a result of alcohol-related incidents and a total of 3.7% of deaths (2.1 million deaths per year) and 4.4% of the disease are because of alcohol consumption. There has been an increase in consumption of alcohol over the past 10 years, of which, most is occurring in the developing countries [13]. Estimates by WHO (2018) indicate that the total adult alcohol per capita consumption (APC) in India has rapidly increased from 2.3 litres in 2000 to 5.5 litres in 2018 and have been forecasted to increase till 2025.

In the aftermath of COVID-19, it is all the more important, to highlight the interplay between substance, society and health. Due to COVID-19, many individuals found themselves confined in their homes with limited avenues of support from the outside. It has also been reported that while epidemics may not influence all forms of crimes, domestic violence as a form of violent crime is said to increase substantially during such events [1]. There is a plethora of literature that documents the relationship between alcoholism, domestic violence and their interplay impacting upon an individuals' mental health and wellbeing. It has been acknowledged that women disproportionately bear the health and psychological burdens of violence and domestic violence which most often occurs in a safe space i.e. their homes and the perpetrator is usually a person they trust [20]. Therefore, alcoholism is not only a health problem but also a social problem.

Alcohol consumption: Indian scenario

India used to be one of those countries which had lowest consumers of alcohol but now there are about 14 million people who are alcohol dependent and require help. As per the National Family Health Survey (NFHS)-4, 29.2% men and 1.2% women, whereas in NFHS -5, 18.8% men and 1.3% women consume alcohol. After comparing the trends from NFHS-4 and 5, it is evident that there is a gradual decrease in this practice [3]. While NFHS findings indicate a decreasing trend, WHO's report on Status on Alcohol Use and Health at Global level (2018) indicates a 38 per cent increase in APC among those aged ≥ 15 years in India from 2010-2017.

A recent trend of consuming alcohol has been observed with drinking patterns varying amongst different socio-cultural practices in developing countries like India. One of the major changes in the trend which has been observed is people have started consuming alcohol at younger ages. According to studies conducted by Alcohol and Drugs Information Centre India, a non-governmental organization (NGO) in Kerala, there has been an increase from 2% to more than 14% in the drinking population aged under 21 years and in the past two decades the average age of initiation has reduced from 19 years to 13 years. The introduction of flavoured alcoholic drinks has increased its consumption by attracting new consumers who were previously non-drinkers (OECD, 2021).

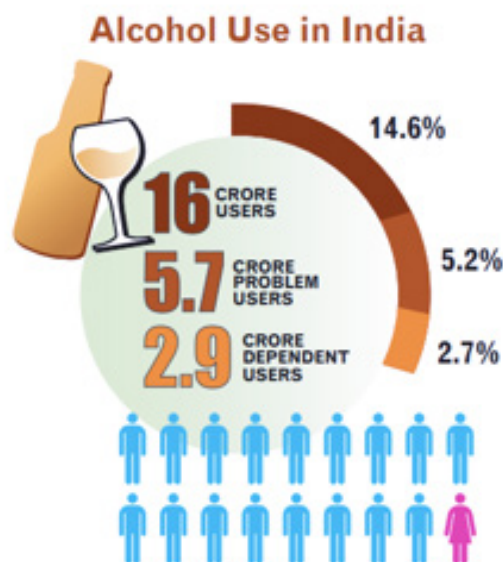


Fig 1: Prevalence of Alcohol Use in India

Source: National Survey on Extent and Pattern of Substance Use in India (2019), Ministry of Social Justice and Empowerment, Government of India

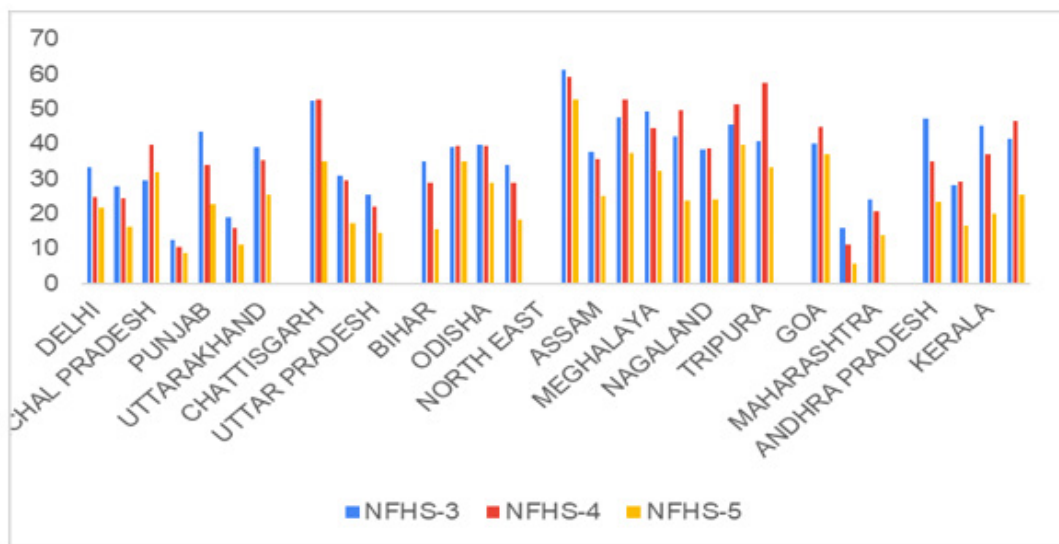
Alcohol consumption states wise in India-NFHS

According to a report on magnitude of substance use in India (2019) the states with the highest prevalence of alcohol use are Chhattisgarh, Tripura, Punjab, Arunachal Pradesh and Goa [7]. As per the NFHS-5 report 15.5% men above 15 years of age consume alcohol in Bihar which is a dry state (complete prohibition on the consumption of alcohol). Between NFHS-3 and NFHS-4, there was a considerable decrease in current alcohol use among men and women. In NFHS-5, there was a decrease in the proportion of men reporting alcohol usage in all but one state (Himachal Pradesh). In 12 states, the proportion of women reporting alcohol usage has decreased, while in three states it has increased (NFHS-3 to NFHS-5^[3]).

Prevalence of alcohol consumption among men

It may be seen from graph 1 that males in the northeast states consumed greater quantity of alcohol than rest of India. Among the states Arunachal Pradesh men consumed the most alcohol (53%) followed by Telangana(43%), Sikkim (40%) Manipur (37%), Goa (36%), and Jharkhand and Chhattisgarh each state shows (35%) alcohol consumption. Our findings are in line with other studies indicating that consumption of alcohol has regional variations and that alcohol use is most prevalent in the North-East, Chhattisgarh, Telangana, Himachal Pradesh, Punjab and Jharkhand ^[18].

If we look at gender differences, while comparing NFHS-3 and NFHS-4 data there has been a decrease in alcohol consumption among men and same has been the case in NFHS-5 which could be attributed to under reporting and/or alcohol sale restrictions due to COVID-19 and subsequent lockdown.

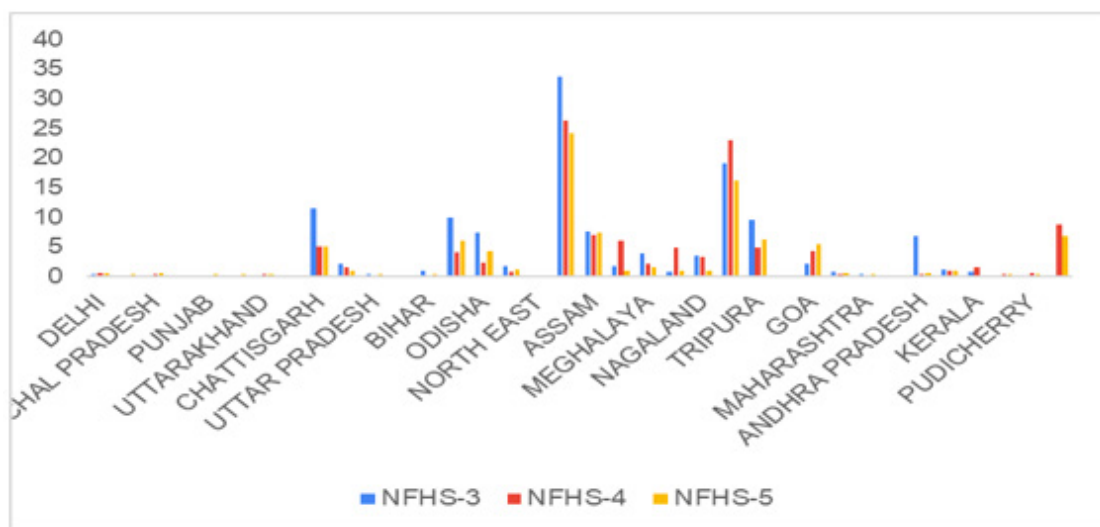


Graph-1: Men aged 15 and above who use alcohol by states in India (%)

Prevalence of alcohol consumption among women

The graph 2 shows that north east states women were consuming more alcohol than women from the other regions of the country. Among the states women from Arunachal Pradesh consumed highest alcohol (24%) followed by Sikkim (7%), Telangana (7%) Chhattisgarh (6%) and Tripura (6%) each state

showing (35%) alcohol consumption. Compared to NFHS-3, NFHS-4 alcohol consumption by women has decreased in NFHS-5 due to covid-19 restriction and under reported the data. In India Goa one of the state is shown (5%) the alcohol consumption increasing in NFHS-5.



Graph-2: Women aged 15 and above who use alcohol by states in India (%)

Domestic violence

Literature suggests ^[16] alcohol use and violence may be considered as risk factors for poor mental health among women. Studies reveal that partner alcohol problems pose diverse health threats for women that go beyond the well-documented association with domestic violence. It was reported that women whose partners had alcohol problems were more likely to experience victimization, injury, mood disorders, anxiety disorders, and being in fair or poor health than women whose partners did not have alcohol problems. They are also said to experience more life stressors and have lower mental/psychological quality of life scores^[5].

NFHS-3 (2005-6) has indicated that the experience of spousal physical or sexual violence varies with level of the husband's alcohol consumption. 69% of women whose husbands got drunk often had experienced spousal violence, as compared with 30% of women whose husbands did not drink alcohol. But over a period of a decade, this spousal violence has increased due to the easy proximity of drinks. NFHS-4 (2015-16) has indicated that the experience of spousal physical or sexual violence varies with levels of the husband's alcohol consumption. 71% of women whose husbands got drunk often had experienced spousal physical or sexual violence, compared with 22% of women whose husbands did not drink alcohol. Alcohol is said to be the culprit in up to 50% of the cases of sexual assault.

Family conflict arises

If consumed in excess, alcohol can affect all areas of a person's life, as well as the lives of their family and friends. It has been indicated that alcohol misuse may result in broken families, crimes, economic instability in family, etc.^[6] including strained relations with their family members especially their spouse and children^[21]. Conversely, family support, bonding, and parental monitoring is associated with lower alcohol use ^[22]and social networks and social support also have protective effects^[23].

Economic loss

The economic impact of alcohol consumption plays a major role in families belonging to the lower socio-economic strata. In fact, alcohol use not only causes personal economic losses but also costs the country's economy including having an impact on the developmental trajectory. WHO's Global Status Report on Alcohol and Health (2018) mentions that an increase in alcohol consumption in poorer societies or in lower-income segments of populations can even be detrimental in the achievement of the SDGs. Alcohol consumption would increase the societal burden of alcohol, inclusive of health system cost, out of pocket expenditure and productivity losses amounting to INR 121,364 billion (US\$ 1867 billion). Even after adjusting for tax receipts from sale of alcohol, alcohol poses a net economic loss of INR 97,895 billion (US\$ 1506 billion). This causes an average loss of 1.45% of the gross domestic product (GDP) per year to

the Indian economy [7]. In a study done by Girish et al. (2010)[4]. It was found that alcohol-dependent persons spent more money than they earned, they were forced to take loans to spend for their expenses related to alcohol consumption, on an average, 12.2 working days were lost to the habit and around 60% of the families were financially supported by the income from other family members.

Public health issue

Alcohol related accidents & injuries

One of the major reasons for road traffic accidents is alcohol intake as it impacts driving ability. A study was conducted by the National Institute of Mental Health and Neurosciences (NIMHANS) in 12 major hospitals of Bangalore city, and it revealed that nearly 28% of injuries were noted due to road traffic accidents under the influence of alcohol. Another study done by Gururaj (2003) revealed that alcohol abuse was reported in over 20% of traumatic brain injuries.

According to the data released by the National Crime Records Bureau (NCRB) 2020, Chennai in particular, recorded the highest number of drunk driving deaths in the country. Also in one of the studies conducted by [9] alcohol-dependent individuals with road traffic accidents showed high-risk behaviour most frequently.

Non communicable diseases

According to WHO (2018), alcohol consumption is found to be in association with more than 200 disease and injury conditions. Globally, 3 million deaths every year are noted from harmful use of alcohol (World Health Organization, 2020), which represent 5.3% of all deaths. Alcohol intake causes death and disability relatively early in life. In the age group 20–39 years approximately 13.5 % of the total deaths are alcohol-attributable. A causal relationship was found between harmful use of alcohol and a range of mental and behavioural disorders as noted also with other noncommunicable conditions and injuries.

Bagnardi et al. (2015), noted that heavy alcohol intake strongly increased the risk of cancers of the pharynx, oral cavity, oesophagus and larynx. Also, for both the genders, four drinks per day has increased risk for oral and esophageal cancers by

approximately three-fold and rectal cancers by 1.5 fold[23].

Alcohol with eight other factors accounts for 61% of loss of healthy life years from cardiovascular diseases (CVDs) and 61% of cardiovascular deaths. It is related to many cardiovascular outcomes, including hypertensive disease, haemorrhagic stroke, and atrial fibrillation. Continuous heavy alcohol use has been associated with adverse cardiovascular outcomes. It has also been observed that average drinking in a limited quantity serves as a protective effect on ischaemic diseases, whereas when this drinking style changes to heavy drinking causes severe cardiovascular diseases [24].

Alcohol is associated with various kinds of liver disease, with fatty liver, alcoholic hepatitis and cirrhosis being the most common. The relationship is so strong that in an International Classification of Diseases (ICD) several subcategories of liver disease were given the prefix of alcoholic, e.g. alcoholic liver cirrhosis. The likelihood of developing liver disease is a function of both the duration and the amount of heavy drinking.

Eashwar et al. (2020), outlined several. medical complications that are said to occur as a result of alcohol-use including gastrointestinal (GI) complications, neurological disorders, alcohol related death, psychological stress and reduced quality of life. Regularly consuming alcohol can directly disrupt the lining of the stomach leading to acute gastritis. According to a study [8], it is seen that those who are chronic drinkers suffer from avascular necrosis of the femoral head and reduced bone density[17]. According to research, 17.6% of psychiatric emergencies in an Indian general hospital were noted due to alcohol consumption. Researchers have found that alcohol takes a psychological and physiological toll on the body and alcohol was itself the reason to cause stress on the body's physiological balance[4].

A study done in Chennai [25], noted that suicide rates were much higher among alcohol users as compared to those who do not take alcohol, and nearly (32%) aged 15–54 years men reported consuming alcohol with 9.4% of them were classified as 'alcohol dependent'. A major concern of suicidal attempts was observed which was found to be more common in those with depression amongst both men (6.6%) and women (7.9%). Level of depression was noted to be more prevalent in females compared to males.

Discussion

While public health has been improving with the advent of improved medical and technological development, we continue to be in the midst of an epidemiological transition. There has been reduction in mortality due to communicable diseases but this has also been followed by emerging NCDs. Today, once again we are fighting against NCDs while also dealing with re-emergence of infectious diseases. With COVID-19 not only India but the world has been dealing with an undying virulent disease despite having developed multiple vaccines. (OECD, 2021) In lower-middle-income countries, it is found that global alcohol consumption is increasing and it is likely that the impact of alcohol on inequalities will worsen in the future.

Keeping the above discussion in mind our paper has tried to explore the burden of alcohol-use on not only health but also attempted to suggest interlinkages and subsequent impacts on socio-economic standards, physical health and wellbeing due to domestic violence, economic losses, increasing stressors etc.

It should be noted that there are various policies which are concerned with the consumption and production of alcohol. In India, alcohol is a state subject and hence, states have full control over their alcohol related excise duties, legislation, legal drinking age, production and sale. As per the Indian Constitution state list of item number 51, "alcohol for human consumption", deals with the rules by which the business of liquor in the state is governed. Along with this, Article 47 that drafts the message of raising the level of nutrition, standard of living and improving health. It also takes responsibility to make sure the drinks and drugs which are injurious or detrimental to health are prohibited.

The Government of India has taken numerous initiatives to tackle the growing threat faced due to alcohol by formulating the various alcohol control policies such as The Motor Vehicle Act (1988) to prevent drunk driving and introducing the Minimum Legal Drinking Age (MLDA). According to the National Crime Record Bureau (NCRB), it has been recorded that around 2% of the total road traffic accidents are because of drunk driving. Law

has been made against drinking and driving. States can independently take decisions in view of stopping the loss of health and property which leads to various catastrophic conditions.

Conclusion

It is clearly evident from the preceding discussion that there are many aspects to alcohol and its misuse. Talking about the ground level situation of the country in respect to consumption of alcohol, we observe that there are rules, there are policies formed to control and disseminate as well as the hazardous consequences which happen due to excessive alcohol consumption. But question is the whether the policies and rules which have been put into effect for the benefit of society have been able to make a difference?

There has been increasing liberalization in alcohol availability and its production, except for a few states, which have promulgated prohibition. However, prohibition has more or less failed to curb or reduce alcohol-related problems and even leading to the increase in illicit liquor trade^[16].

Hence, it can be said from the above discussion that there exists an urgent need to monitor, develop regulations and awareness campaigns related to harmful use of alcohol and its subsequent possible impacts on various other indicators. We not only require sustained enforcement of programmes and policies but also an enhancement of alcohol related programs and policies for the near future in order to protect our country's future population health and development.

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