IJCSPUB.ORG ISSN : 2250-1770
INTERNATIONAL JOURNAL OF CURRENT SCIENCE (IJCSPUB)
IJCS PUBLICATION (IJCSPUB.ORG) An International Open Access, Peer-reviewed, Refereed Journal

Understanding The Prevalence Of Alcohol Use Disorder In Gujarat: A Narrative Review

[1]Mithil Gada
[1]High School Research Intern
[1]Mental Health Research,
[1]The Minds Foundation, Vadodara, India

Abstract: This review investigates the prevalence of Alcohol Use Disorder (AUD) in Gujarat since it is one of the states of India with a strict implementation of prohibition. Gujarat's alcohol supply and consumption patterns have undergone substantial shifts, although the state's ban on alcohol still applies to rural areas, where regional variations are still common. This review investigates the variables that impact alcohol consumption, abuse, and mental health in addition to the connection between psychological health and addiction. The state's expansion, urbanization, and modernity may have an impact on trends in alcohol addiction, which is why the study emphasizes the necessity for focused preventive and intervention methods. Comprehending these dynamics can aid in the creation of therapies and support networks that are sensitive to cultural differences for Gujarati addicts**.**

Index Terms **-** alcohol use disorder, drug abuse, youth, addiction, awareness.

Introduction

In high-income nations, alcohol consumption has declined; but, it has surged in Southeast Asia, especially India, where it resulted in 340,000 fatalities and 14.7 million years of disability-adjusted life years in 2019 (1). It is important to recognize and take into consideration the wide range of cultural, economic, and social variations that exist among India's states and union territories when it comes to alcohol consumption. Sub-national variations in alcohol laws, religion, education, and the economy are some of the major factors influencing regional variations in alcohol consumption. As of 2020, alcohol is completely outlawed in six Indian states and union territories, Gujarat included (2). Gujarat was the first state in India to forbid alcohol consumption, having done so since 1960. Government regulatory policies and alcohol control programs vary significantly across Indian states. Gujarat, one of the prominent states in India, is known for its stringent regulations on alcohol consumption, including partial or complete prohibition in certain regions. However, the availability and consumption pattern of alcohol has undergone phenomenal changes in recent times in the state of Gujarat. Despite the prohibition policy on alcohol in Gujarat, locally-made formulations are still prevalent in rural areas, reflecting challenges in enforcing regulatory restrictions. Variations in alcohol consumption patterns between urban and rural areas and choice of alcohol may highlight the influence of availability, affordability, and socioeconomic and sociocultural factors on drinking behaviors in Gujarat. This multifaceted literature review research aims to understand alcohol use profiles and the prevalence of alcohol

abuse across various age groups as well as demographics, its potential impact on mental and physical health, its impact on family and individuals' lives, and investigate the relationship between psychological well-being and alcohol addiction among individuals in Gujarat. The impact of growth, urbanization, and modernization of the state on alcohol abuse trends may underscore the need for targeted prevention and intervention strategies.

Through analysis of previous studies, this review aims to explore the demographic, social, cultural, and economic factors that may be influencing drinking behaviors and attitudes toward alcohol consumption and resulting alcohol addiction in a state where strict prohibition rules are prevalent. Understanding the influencing factors and nuances of alcohol policies in Gujarat is vital for providing valuable insights into the effectiveness and challenges of regulatory approaches. Understanding the patterns of alcohol use and abuse in the region is crucial for promoting overall well-being and reducing the burden of addiction-related mental health issues, physical abuse, psychological abuse, and neglect. Understanding these dynamics can inform the development of culturally sensitive interventions and support systems for individuals struggling with addiction in Gujarat and underscores the significance of comprehensive mental health interventions for individuals facing addiction and related challenges.

Methods:

Initially, a thorough analysis of Gujarat state-level statistics on alcohol consumption among the general public since 2000 was carried out.

Literature search strategy:

The research on alcohol and substance abuse in Gujarat was conducted using various search teams, including "Alcohol and Addiction," "Alcohol and Consumption," "Alcohol Abuse," "Alcohol Use Disorder," and "Substance and Addiction."

Thematic Analysis

- **Prevalence of Alcohol Use Disorder in Gujarat**

Alcohol use disorder (AUD) is a pattern of alcohol consumption that includes issues with self-control, alcohol obsession, or abstaining from alcohol even after it becomes problematic. In addition, drinking more to achieve the same impact or experiencing withdrawal symptoms when you abruptly cut back or stop drinking are other aspects of this illness. A degree of drinking that is occasionally referred to as alcoholism is included in alcohol use disorders. There have been many studies conducted regarding the prevalence of alcohol use across the country and specifically in Gujarat since it is known to be a dry state and researchers need to understand how the strict rules do not get implemented.

- **Socio-Economic and Demographic Factors/observations**

Among the literature collected from 2000 till date, the first one is from 2003 by Kadri et al. studying the socio-demographic profile of substance abusers attending a de-addiction center. There are several studies in a similar category following this. The de-addiction centers however represent the socio-demographic profile of a very small sample size of the population which makes it difficult to understand the overall trends in the population. This study found that substance abusers were predominantly from lower socio-economic classes III, IV, and V, with alcohol being the most commonly used substance. Those with a family history of addiction started the habit earlier (3). According to a 2013 study by Prajapati et al., substance abuse is common among those between the ages of 25 and 45, with men making up the bulk of those who abuse it. In de-addiction institutes, patients seek treatment; 58.3% of them are part of nuclear families. Most people who take drugs are married and have less education. Substance misuse usually starts before the age of thirty. Alcohol, cannabis, brown sugar, alprazolam, cough syrup, and white ink are among the drugs that are frequently abused. The main determinants are friends, then family issues and mental stress (4). According to Prabhakaran et al.'s study, Gujarat has a higher mean age of initiation than Kerala, which may be a result of the state's alcohol prohibition, which discourages young people from starting drinking too young due to the difficulty of acquiring alcohol and social stigma. But the age at which initiation occurred in their hospital sample might not match the age at which initiation occurred in the community (5). Khandhedia et al. (2015) discovered that 67% of substance abusers were between the ages of 25 and 45, with 40.8% beginning abuse during youth and 45.6% between 20 and 30. The average age at which substance use began was 22±6 years, and the average amount of time used was 18.1 years. Brown sugar addiction was more common than alcohol misuse, with 13.6% of cases. The majority of abusers were skilled or semi-skilled workers who belonged to socioeconomic class 4. The inception of substance misuse was significantly influenced by peer pressure from friends (6).

The purpose of the study by Jasani et al. (2019) was to ascertain how common drug misuse was among teenagers in Gujarat's Surendranagar region. 600 teenagers between the ages of 10 and 19 participated in the study, and information was gathered orally using a questionnaire. According to the survey, alcohol abuse was prevalent at 2.17% and drug abuse at 30.17% overall. Rural areas had a higher prevalence of alcohol misuse (3%) compared to urban areas (1.33%) (7).

- **Cultural and Religious Influences**

Most of the surveys did not include religion as a factor. One of the studies conducted by Patel et al. discovered that the majority of participants were Hindus (76.5%), followed by Christians (13.3%). Culture, society, family and peer pressure are some of the major influences for an individual to start drinking. A study by Prabhakaran et al discovered that the average age of first drinking was 21±5 years [15 to 30 years], the average age of frequent drinking was 24±6 years, and the average age of daily drinking was 27±6 years. 36% of participants had a pattern of daily drinking, 54% were regular drinkers but did not report being daily drinkers, and 10% of participants said they did not drink often (5).

- **Mental health and overall health consequences**

Drinking alcohol can cause a number of health problems, such as problems with the gastrointestinal tract (GI), cancer, changes in the genitourinary system, skeletal muscle weakness, neurological problems, and psychological problems (8,9). Alcohol enters the body through the stomach and small intestine, travels through the bloodstream to all of the body's organs and is eventually eliminated by the kidneys. Hospital admission rates are rising as a result of alcohol use, accounting for 20% to 30% of hospitalizations because of direct or indirect issues. Acute gastritis and vomiting are examples of digestive problems, however chronic alcohol consumption might result in alcoholic liver disease (ALD). In addition, drinking alcohol raises the risk of rectal, oral, and esophageal cancers as well as breast cancer. Skeletal muscle weakness, decreased bone density, alcoholic tremors, myopathy, Wernicke's encephalopathy, and cerebellar degeneration are examples of muscular abnormalities. Reaction times that are slower, clouded vision, memory loss, and blackouts are examples of neurological problems. The brain chemical serotonin is depleted in psychiatric problems, which increases the likelihood of risk-taking behaviors, personality disorders, and suicide. Drinking alcohol is a significant risk factor for suicide, and the suicide rate among drinkers and their spouses is on the rise (10).
At a particular de-addiction center in Ahmedabad, Suresh and Sachin looked at the effects of group therapy on the psychological well-being of alcoholic dependents and control groups. The experimental group's monthly income was higher, its share of people aged 21 to 30 was higher, and its proportion of people with a secondary education was higher. The percentage of good, moderate, and poor psychological health was higher in the experimental group. The findings imply that group treatment can successfully enhance alcoholics' psychological health (11).

- **Current Legal and Policy Framework**

Governments can lessen the negative effects of alcohol by implementing intersectional public health strategies, which include raising tariffs, enforcing laws against drunk driving, limiting the availability and marketing of alcohol, and providing short-term psychosocial treatments for alcohol use disorders (AUDs). These low-cost tactics reduce health disparities and have distinct effects on heavier drinkers. Globally, national alcohol regulations are present in only 15% of low-income countries, 43% of middle-income countries, and 67% of high-income ones. The majority of regulations do not impose any limitations on the marketing and advertising of alcohol; smaller nations, Africa, and the Americas are exceptions. Alcohol corporations use non-traditional and digital marketing strategies to adjust to constraints, and treatment coverage for alcohol use disorders (AUDs) is typically inadequate, particularly in low-income nations (12). To successfully handle the complex issue of alcohol usage, a comprehensive national alcohol policy is required. To reduce alcohol-related fatalities, diseases, and injuries, the World Health Organization (WHO) suggests strengthening, advancing, facilitating, enforcing, and raising the package of interventions. Stronger limitations on the availability of alcohol, the advancement and enforcement of laws prohibiting drunk driving, the facilitation of screening, short-term interventions, and treatment, the enforcement of complete prohibitions or extensive restrictions on the advertising, sponsorship, and promotion of alcohol, and the augmentation of

alcohol prices through excise taxes and pricing policies are all important areas of focus. An estimated USD 1867 billion will be spent managing alcohol usage and its effects, with an average annual GDP loss of 1.45% from 2011 to 2050. As India's per capita alcohol consumption is predicted to rise to 8.8 liters by 2030, the strategy should also make screening, quick interventions, and treatment more accessible (13). There are four national policies that have been identified to address the harmful effects of alcohol consumption. The 2018 Food Safety and Standards (Alcoholic Beverages) Regulations seek to uphold labeling regulations while establishing uniform standards for components in alcoholic beverages. The amount of standard drinks, the percentage of alcohol by volume or proof, and the absence of any language suggesting non-alcoholic, non-intoxicating, or health advantages must all be included on alcohol packaging. Additionally, a warning not to drink and drive must be displayed on alcohol containers in either English or the state's official language, with a minimum sign size of 3mm. Six of the 33 excise statutes at the State/UT level mandate security holograms or warnings on alcohol bottles and other retail containers (12).

- **Healthcare availability and access to mental healthcare**

Every large area has a number of de-addiction centres, but family and peers rarely provide the encouragement needed to get addicted people to sign up and show up for the offered sessions. Many tribal people may not receive the necessary therapy if there is a shortage of resources and knowledge about the severity of mental illness among tribal teenagers. It is imperative to take proactive measures to detect, diagnose, and treat psychiatric illness. It is imperative that future studies focus on methods for enhancing mental health and lowering alcohol consumption among young adults (14).

In 2018, Parmar conducted a study where the purpose of it was to evaluate the medical students in Valsad, Gujarat, regarding their knowledge and understanding of substance addiction. 135 second-year MBBS students from Gujarat's GMERS Medical College in Valsad participated in the study. They were questioned on their comprehension of substance addiction using a Likert scale. The results showed that pupils were ignorant of the consequences of drug abuse, de-addiction facilities, and the penalties for using illegal drugs. Students demonstrated an awareness of addiction patterns and techniques, however there were clear understanding gaps regarding clinical aspects and drug consequences. The study made clear how important it is to develop educational initiatives that will raise students' understanding and consciousness of substance abuse (15). It is imperative that the healthcare workers also have a good understanding of all the laws and regulations that are in place that affect the health of the general population.

- **Impact on Health & Society**

Child abuse, encompassing physical, psychological, and sexual abuse, is a serious problem that affects many countries, including India. Maltreatment of non-sexual children can have long-term health effects, including substance abuse, mental illness, suicide, and unsafe sexual conduct. Two-thirds of the 17,200 children from 13 states who were the subject of an investigation by the Indian government in 2007 had been physically abused, more than half had been sexually abused, and half had been psychologically abused. According to

research from around the world, drinking by adults is linked to a number of negative effects on kids, with parental drinking being linked to alcohol use or alcohol-related issues (16). Studies show that adolescent mental health problems are more common in them because of a variety of environmental factors. Only 3% of them exhibit hyperactivity, while about one-fifth experience internalizing and one-sixth externalizing symptoms. Illiteracy, parental occupation, daytime family distance, nuclear family, serious alcohol addiction, money problems, and regular physical punishment are examples of common risk factors (16). Teenage tribe members exhibit a greater frequency of psychiatric morbidity; mood disorders, obsessive-compulsive disorder, alcohol use disorder, and phobic anxiety disorder are the most prevalent (14).

Discussion

- **Synthesis of Findings**

Even though the state of Gujarat has several strict laws implemented regarding the intake of alcohol, the local urban and rural population find either locally sourced alcohol or they are somehow imported into the state breaking the rules. The percentage of population consuming alcohol in this state is no less than it is in the other states.

- **Challenges & Barriers**

Previous research has demonstrated the prevalence of illicit liquor manufacture and trafficking as well as the lax implementation of alcohol-related rules, such as those governing the minimum drinking age and drunk driving. States with prohibition laws often have problems with smuggling and enforcement. Inadequate funding is posing an implementation difficulty for the Mental Health Act of 2017. The District Mental Health Programme and the Narcotic Drug and Psychotropic Substance Act are two examples of health system approaches that may address alcohol consumption but do not focus on it. Translating policies to enhance public health and lessen alcohol-related harms will require more effort (12).

- **Gaps**

The sociodemographic makeup of alcohol addicts is the main topic of research done in particular de-addiction facilities (3,4,6,11,17,18). Although they offer insightful information, there are several gaps that need to be filled in by further research, including those pertaining to gender inequality, sample size limitations, age of initiation, study scope, family history, and motivations for initiating alcohol use. Studies occasionally only include male subjects, which suggests a knowledge vacuum about the sociodemographic makeup of female alcohol addicts because most females are embarrassed to visit any type of treatment facility. A larger sample size might offer more thorough understanding of the sociodemographic makeup of alcohol addicts. The majority of the time, the researchers did not investigate the efficacy of the treatment programs offered by the de-addiction center or the follow-up care provided to evaluate the long-term impact of group therapy on the

psychological health of substance abusers. It's also important to research how Gujarat's unique cultural and geographic characteristics affect alcohol consumption trends.

Although Toshniwal et al.'s study sheds light on the frequency of drug abuse among young people and the factors that influence it, it did not address alcohol abuse specifically, and there is a dearth of particular information regarding the drugs that young people in Vadodara are abusing. The long-term impacts of drug misuse on teenage academic performance and mental health outcomes should also be investigated for the benefit of the study (19).

In a study published by Pragnesh P., he examined medical students' knowledge and awareness of substance addiction in Valsad, Gujarat. However, the study did not examine the efficacy of currently offered educational programs on substance addiction or go deeply into the causes of the students' lack of awareness. Furthermore, the study did not discuss the unique difficulties or resources associated with substance addiction awareness and treatment in Valsad, Gujarat (15).

In an investigation of alcohol-related harm to children, Esser et al. concentrated on neglect, physical abuse, and psychological abuse. They note certain limitations, including non-probability sampling, the need for more study on sexual abuse and the long-term effects of alcohol-related harm on children, and the subjective interpretation of harm statistics. Subsequent investigations may delve into the mechanisms that underlie alcohol-related damages, appraise the significance of various harm levels, and appraise the efficacy of policy measures in mitigating alcohol-related harm to minors. In order to successfully address this public health concern, filling in these research gaps will help advance our understanding of alcohol dependence and provide guidance for targeted interventions and policy (16).

- **Bridging the Gaps - Implications for Policy, Interventions and Practice - Prevention and Treatment strategies.**

Regular monitoring is rarely mentioned, despite the fact that India has been the subject of numerous epidemiological studies. Although the National Family Health Survey (NFHS) regularly publishes data on alcohol and tobacco use, the agency's overall mandate is too broad, therefore the data may not be reliable in terms of methodology. Furthermore, data on other crucial characteristics, like dependence and excessive episodic drinking, are absent from these studies. The results of numerous national epidemiological studies documenting substance usage in India are presented in this narrative review. The majority of these investigations used multistage stratified random sample techniques and household surveys. The majority of these studies were based on self-reports, and there is no system in place for routinely tracking the prevalence of different substances. Recall bias, the stigma attached to substance use, and the fear of facing legal consequences are some of the variables that may cause respondents to underreport their substance usage in these kinds of surveys.

In addition to smaller, underrepresented susceptible population groups, nationally representative epidemiological data on substance use among particular population groups such as women, teenagers, and the elderly are required. These studies also show that in order to address the significant disease burden associated

with substance use and its linked disorders, there is a need to scale up prevention programs and treatment services in addition to large-scale capacity-building activities.

- **Recommendations**

According to the study, early intervention can stop mental health issues from getting worse for those who are addicted. Peer support, therapy, and counseling are just a few of the comprehensive services that integrated support networks can offer. These findings can be used by policymakers and program developers to create evidence-based programs that provide mental health support for addiction first priority. Gender-specific techniques, youth-focused early intervention programs, family-focused treatments aimed at high alcohol-consumption families, and community-based support networks are among the recommendations. Early twenties substance usage can be avoided in schools and universities by promoting extracurricular activities. Senior family members should abstain from substance abuse, and other family members should be kind and vigilant for early detection.

Conclusion

The frequency of alcohol use in Gujarat and its possible health effects are investigated in this study. It highlights how important it is for anyone battling addiction to have support networks and interventions that are appropriate to their cultural background. Locally produced alcohol formulations are nevertheless common in rural regions despite the prohibition legislation, which illustrates the difficulties in implementing legal limitations. The study also emphasizes how Gujarati drinking habits are influenced by societal, economical, and availability issues. In order to create successful treatments for alcohol dependence in Ahmedabad, it also emphasizes the significance of taking peer pressure, early initiation of alcohol use, family history, and other aspects into consideration. The report also emphasizes the trend toward more contemporary substances, such as brown sugar and alcohol, with alcohol emerging as the most popular drug among drug abusers. It also emphasizes the necessity of focused interventions and preventative measures in Gujarat's rural areas. It has also been noted how crucial it is to put preventive measures into place and spread information in order to combat teen substance misuse, particularly in tribal regions.

References:

1. Manthey J, Shield KD, Rylett M, Hasan OS, Probst C, Rehm J. Global alcohol exposure between 1990 and 2017 and forecasts until 2030: a modelling study. The Lancet. 2019;393(10190):2493–502.

2. Parmar A, Bhatia G, Sharma P, Pal A. Understanding the epidemiology of substance use in India: A review of nationwide surveys. Indian J Psychiatry. 2023 May;65(5):498–505.

3. Kadri A, Bhagyalaxmi A, Kedia G. A Study of Socio-Demographic Profile of Substance Abusers Attending a De-Addiction Centre in Ahmedabad City. Indian Journal of Community Medicine. 2003 Jan 1;28.

4. Prajapati A, Thakkar J, Parikh S, Bala DV. A study of socio-demographic profile of substance abusers other than tobacco abuse attending a de-addiction centre in Ahmedabad City. International Journal of Medical Science and Public Health. 2013 Jul 11;2(4):931–931.

5. Prabhakaran A, Varma J, Ganjiwale J, Shah K, Makwana J. Alcohol use profile in hospitalized patients at a tertiary care center in rural Gujarat. Journal of Health Sciences and Professions Education. 2021 Oct 1;1(1):14–14.

6. Khandhedia S, Raval CM, Thakor N. Profile of substance abusers attending at de-addiction center of GMERS medical college, Dharpur-Patan, Gujarat, India: a cross sectional study. 2015;

7. Jasani PK, Jadeja YM, Patel NM, Jadeja DY, Shrimali JB, Purani SK. Prevalence of substance abuse among adolescents of urban and rural community in Surendranagar district, Gujarat. Int J Community Med Public Health. 2019;6(5):1970–4.

8. Bagnardi V, Blangiardo M, La Vecchia C, Corrao G. Alcohol consumption and the risk of cancer: a meta-analysis. Alcohol Research & Health. 2001;25(4):263.

9. Adityanjee, Mohan D, Wig N. Alcohol-related problems in the emergency room of an Indian general hospital. Australian and New Zealand journal of psychiatry. 1989;23(2):274–8.

10. Eashwar VA, Umadevi R, Gopalakrishnan S. Alcohol consumption in India–An epidemiological review. Journal of family medicine and primary care. 2020;9(1):49–55.

11. Suresh V, S. S. Effectiveness of group therapy on psychological wellbeing among alcoholic dependents at selected De-addiction Centre in Ahmedabad. IOSR Journal of Nursing and Health Science. 2014 Jan 1;3:35–9.

12. Schess J, Bennett-Li L, Velleman R, Bhatia U, Catalano A, Jambhale A, et al. Alcohol policies in India: A scoping review. Plos one. 2023;18(11):e0294392.

13. Parmar A, Balhara YPS, Singh A. Toward a national policy on Alcohol: A complex public health issue in need of urgent action. Indian journal of psychiatry. 2023;65(9):974–8.

14. Gharat VV, Chandramouleeshwaran S, Nayak S, War RJ, Deshpande SN, Nimgaonkar VL, et al. Prevalence of Psychiatric Morbidity and Alcohol use Disorders Among Adolescent Indigenous Tribals from Three Indian States. Indian J Psychol Med. 2024 Jan;46(1):39–45.

15. Parmar P. Knowledge and awareness regarding substance addiction among medical students of Valsad, Gujarat. Forensic Sci Add Res. 2018;4(1):1–3.

16. Esser MB, Rao GN, Gururaj G, Murthy P, Jayarajan D, Sethu L, et al. Physical abuse, psychological abuse and neglect: Evidence of alcohol-related harm to children in five states of India. Drug and alcohol review. 2016;35(5):530–8.

17. Patel PR, Makadia KD. A Study of Socio Demographic Profile of Alcohol Dependents Attending De-Addiction Centre in Ahmedabad. National Journal of Community Medicine. 2018 Sep 30;9(09):714–8.

18. Prajapati BB, Dedun MR, Jalfava HS, Shukla AA. A study of socio-demographic profile and pattern of drug use among substance abusers attending mind care de-addiction center in Ahmedabad. International Journal Of Community Medicine And Public Health. 2019;6(1):286–9.

19. Toshniwal S, Toshniwal DP, Akshata Thorat KS. Addiction as a System Failure: "Drug Abuse in Youth of Vadodara." International Journal of Innovative Research in Medical Science. 2017 Sep 25;2(09):1315 to 1318–1315 1318.