

Alcohol and Alcoholism in India; A Historical Review

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ABSTRACT

Ancient Sanskrit texts give sufficient evidence on the presence of alcohol in ancient India. As alcohol, including distilled liquors, was widely available, overindulgence was part of the problems of the ancient societies. Exploring history redefines the notion of seeing the evil of alcoholism as entirely an import from western culture. Alcoholism and related problems were existing throughout the history of India. There were three distinct approaches used to tackle alcoholism; moral-suasion, legal-suasion, and medicine. Connections can be established between some of the current evidence-based approaches with some of the practices from ancient India. The earliest medical explanation on alcoholism can be seen in *Charaka Samhita*, an Ayurveda text compiled before the second century AD. Ayurveda, one of the traditional Indian system of medicine, still remains an unexplored treatment for alcohol other substance use disorders. This historical review brings clinically relevant insights for the present-day addiction professionals and researchers.

Keywords: History, Alcoholism treatment, Alcohol use disorder

INTRODUCTION

As Keller paraphrased the famous biblical quotation, "In the beginning there was alcohol!"^[1] Before alcohol, a unicellular microorganism called Yeast existed. These magical creatures belonging to the fungus kingdom had evolved from multicellular ancestors several million years ago.^[2,3] However, only in 1680, yeast globules were observed for the first time using a home-

made microscope by a Dutch draper named Antonie van Leeuwenhoek who is also known as the father of microbiology. But he did not consider them as living organisms that are responsible for making alcohol. A century later, in 1789, Antoine Lavoisier, a French chemist, explained the chemical process of fermentation for the first time. Almost 50 years later, in 1837, a German chemist named Franz Julius Ferdinand Meyen isolated a genus of yeast and named it 'saccharomyces,' meaning 'sugar fungus.' Only in 1870, the fermentation was demonstrated as a process in which the living organisms, yeast, transforming glucose into ethanol by the French chemist, Luis Pasteur.^[4-6]

There are various imaginative stories on man's first encounter with alcohol. The story narrated in *Jātaka*, the ancient collection of Buddhist tales, goes as follows; A forester named *Sura*, who used to go to the Himalayas in search of merchandise to sell, found a tree with a hollow as big as a wine jar. When it rained, the hollow was filled with water. Two Myrobalan plants and a pepper shrub grew around it, and their ripe fruits fell from in that tree hollow. There was a self-grown rice field not far from this tree. Birds used to pluck the rice from there and eat sitting on this tree. And while they were eating, rice and husk fell to the tree hole. The water, filled with fruits and rice, fermented and turned to blood-red color. In hot weather, flocks of birds, who were thirsty, drank from it and got drunk, fell to the foot of the

tree and, after sleeping for a while, flew away chirping happily. It was the same for wild dogs, monkeys, and any creatures who drank from it. On seeing this, Sura said: "They would have died if it were poison, but they woke up after a short sleep and were just fine; It is not poison." And he himself drank from it, and when drunk, he felt like eating meat, and then, setting the fire, he roasted roosters and partridges and ate. Enjoying the newly found drink and meat, he stayed there for one or two days. There was an ascetic named *Varuṇa* not far from here. He often visited him, and now he struck with the thought, "I will drink this with the ascetic." He filled it in a bamboo pipe and took it with some roasted meat; he approached the ascetic and said: "Holy sir, taste this." They both drank it along with the roasted meat. So, due to the fact that Sura and *Varuṇa* discovered this drink, this drink was called by their names, *surā and vāruṇī*. The story continues narrating about them sharing it with other people and the king, and later making it on their own.^[7]

This story seems set in a civilized society, but in reality, this happenstance might have occurred long before civilization. It is logical to conclude that alcoholic beverages were discovered in prehistoric times. The man might have savored alcohol accidentally for the first time when he ate some unattended fruits that were fermented by the invisible wild yeasts and soon endeavored to make it wilfully. Archaeological findings traced the presence of alcohol thirteen millennia ago. A team lead by Li Liu from Stanford University traced the evidence of brewing in *Raqefet Cave* in Israel 13000 years ago.^[8] There are various evidence for brewing and fermenting during the Neolithic period. A Chinese treatise from the eleventh century on wine concludes, "as for who was the first one who invented wine, I can only say that it was a certain wise person."^[9] There were times when alcohol was considered divine and used as a medicine to treat almost all illnesses. The same alcohol was blamed for various illnesses, social disorders, and

death, causing misery to humankind. This polarity of views towards alcohol can be seen throughout history. There were times when alcoholic beverages were considered the safest drink in some parts of the world. Most European doctors warned of the dangers of drinking water during AD 1500-1800 and recommended *total abstinence* from water.^[10] Alcohol was used as currency in different parts of the world.

There are probably no other substances than alcohol that received the amount of praise and condemnation from humankind. If alcohol prevailed in ancient societies, the chance is rare that they were not troubled by alcohol-related problems. Throughout history, there have been various attempts to understand and treat alcoholism and other addictions. Addiction or Substance Use Disorders (SUDs), as it is known at present, is a convoluted problem. Its complexity is such that even after centuries of research, scientists and clinicians are still unable to arrive at an agreeable conclusion on its basic nature itself. This paper makes an effort to explore how alcohol and alcoholism were viewed and treated throughout the history of India.

Alcohol and alcoholism in ancient India

Some historians suggest that ancient South Indians had knowledge of toddy tapping.^[11] Furthermore, the art of distillation could be the gift of India to the world.^[12] Around 1500 BC, before the arrival of Aryans, the inhabitants of ancient India used to make the earliest distilled alcohol called *pariśrut*.^[13] It must be emphasized that the Indo-Aryans indulged in spirituous liquors, perhaps excessively. The potteries found during the Indus Valley excavations indicate that Harappans had the knowledge of distilling long before the arrival of Aryans.^[14,15] Whether the knowledge of making spirituous liquors existed prior or brought by Aryans, their use quickly became part of their ceremonial rites and rituals of every clan and tribe. *Soma*, the spirituous liquor that is associated with the Moon deity with the same name,

was praised throughout *Rigveda Samhitā*. Rigvedahas hymns that state that soma was consumed by people freely and kept in leather bottles.^[16] Having the same name for the deity and the liquor, meaning having both identified with one symbol, also hinting towards our ancestors' passion towards the spirituous liquor. The Rigvedic hymns praise soma as 'celestial nectar' with divine characteristics. Thus the very first impression Aryans had might be that alcohol is divine. Soma is considered the holiest offering in the ancient Indian worships. The preparations for the Soma ritual known as *somayāga* begins with collecting the moon plant.^[17]

"The plant, plucked up by the roots, collected by moonlight on the mountains, is carried on a car drawn by two goats to the place of sacrifice, where a spot covered with grass and twigs is prepared, crushed between stones by the priests; and is then thrown, stalks as well juice, sprinkled with water, into a sieve of loose woolen weave, whence, after the whole had been further pressed by the hand, the juice trickles into a vessel or kettle which is placed beneath. The fluid is then mixed with sweet milk and sour milk, or curds, with wheaten and other flour, and brought into a state of fermentation; it is then offered thrice a day and partaken of by the Brahmans. ...It was unquestionably the greatest and holiest offering of the ancient Indian worship. ...The Gods drink the offered beverage; they long for it; they are nourished by it and thrown into a joyous intoxication. ...The beverage is divine, it purifies, it is a water of life, gives health and immortality, prepares the way to heaven, destroys enemies, etc."^[18]

It was not just soma, but there were several kinds of wine and liquors available to them. The ancient Sanskrit literature has mentions of different kinds of intoxicating beverages such as *medhaka*, *prasana*, *maireya*, *āsava*, *arishtha*, *madhu*, *soma* and

surā.^[19, 20] *Kautilya* lists twelve kinds of alcoholic drinks, whereas *Charaka's* list contains at least 84 kinds.^[15, 21] Two *sūktas* from *Paippalāda-Samhita* of *Atharvaveda* are entirely designated to explain the preparation as well as the effects of *surā*.^[22] *Yajurveda* also gives recipes for a few other intoxicating beverages such as *pariśruta* and *masara*. *Pariśruta* is prepared by fermenting certain flowers and fruits, whereas rice and spices were used to ferment *masara*.^[23]

Though there are positive references towards alcohol in the ancient texts, the later Vedic period prohibited drinking alcohol for the gratification of the senses, stating, "wine is unfit to be drunk, unfit to be given, unfit to be accepted" and sanctioned only ceremonial use.^[24] This shifting attitude towards alcohol from the divine to evil and implementing strict rules on its consumption during the later Vedic period itself is an indication that habitual drunkenness or alcoholism existed in Ancient India. A 2nd-century Tamil poem in the Sangam literature titled *Maturaikkāñci* mentions about the drunken villagers tottering on the roadside.^[21] Intriguingly, alcohol consumption was widespread among women, and the available sculptural evidence makes it indisputable that excessive drinking was common among women in ancient India. As Varadpande states;

"In ancient India, women used to drink various kinds of wines and liquors to enjoy themselves, celebrate an occasion, enhance the pleasure of lovemaking and give company to their lovers, as a part of fun and merrymaking, even magico-religious rituals and worship of certain deities."^[25]

Early attempts to address alcoholism

Probably, habitual drunkenness was approached first through moral-suasion followed by legal suasion. As seen earlier, the later Vedic period prohibited recreational use of alcohol and sanctioned only for ceremonial purposes. A step

further, later, Sage Manu favored abolishing alcohol rather than confining its use. He opposed even ceremonial use and laid down strict rules and severe penalties for drinking. Removing the religious importance of alcohol was a thoughtful step by Sage Manu. *Manusmṛiti* (MS) imposed severe restrictions for the twice-born (those belonging to upper castes) on drinking spirituous liquor.^[26] Manu's expiation for a twice-born who drank *surā* intentionally was to drink the same liquor boiled-hot till his body gets completely cauterized to be freed from the guilt of drinking (MS, 11.90). Also, for a *Brahmin*, deluging with spirituous liquor even once would forsake his *Brahminhood* and become *Sudra* (MS, 11.97). Manu warned that a *Brahmin* who indulges with *surā*, after being through dreadful hells for long years, would be reborn as small or large insects that feed on ordure (MS, 12. 54 &56).

Drinking spirituous liquor was considered one of the six causes of women's ruin (MS, 9.13). Manu permitted a husband to marry another woman if his wife drinks (MS, 9.80). Women were prohibited from drinking even at the festivals; if found, they were fined six *krishnalas* (MS, 9.84). Manu was against those who sell spirituous liquors; he instructed, "let the king instantly banish the sellers of spirituous liquors from his town (MS, 9.225). Drinking *surā* was considered by him a *mahapapa* meaning mortal sin (MS, 9.235). If the drinker of *surā* unwilling to perform penance for his sin, he would be punished by marking the sign of a tavern on his forehead with a hot iron (MS, 9.237), and Manu warned that the natural physical appearance of the drinker would be changed as a consequence of the crime of drinking (MS, 11.49). Even touching the liquors was an acceptable act. Manu also forbade eating food or water that is kept near to spirituous liquors or in a vessel used for storing the liquor. He mandated that those who drink water kept in a jar that stored liquor in the past shall drink only milk boiled with *Sankhapushpi*

(*Convolvulus pluricaulis*) for five days (MS, 11.147).

Condemning alcohol and advocating to abolish it can be seen in other ancient scriptures. Similar rules and penance for drinking spirituous liquors can be seen in the *Dharmasūtras* of *Apastamba*, *Gautama*, *Baudhāyana*, and *Vāsiṣṭha*. *Dharmasūtras* are compilations of general laws or codes of behaviors.^[27] As in *Manusmṛiti*, these ancient law books are also puritanical towards alcohol and impose strict rules and severe punishments for drinking. Indulging in drinking was seen as an activity of the *Śūdras* (the lowest-ranked caste). Liquor, as well as the herbs used for making liquor, are considered forbidden food for those belonging to the upper castes, and drinking liquor makes them outcasts or sordid. Similar to *Manusmṛiti*, the penalties for a man who is drunk include making them drinking burning hot liquor and branding his forehead with a tavern. *Dharmasūtra* of *Gautama* considers even smelling the breath of a drunken man as undesirable. If someone gets the smell of it, he is supposed to hold his breath and consume ghee. *Baudhāyana* considered liquor breweries as impure while all the other factories as pure. *Vāsiṣṭha* stated that half the body of a *Brahmin* becomes outcast if his wife drinks liquor.

Though these codes of laws laid down such severe rules on drinking, it failed to uproot the drink; however, they succeeded in bringing down drinking from its sacrosanct status to an evil and pernicious activity.^[24] The problem of drinking continued, and indulging in alcohol was looked down on as a moral failure. Another early landmark in addressing alcoholism in the country was the approach proposed by the *Buddha*. The *Buddha* also propagated against alcohol and advocated total abstinence. One of the five precepts of Buddhism is "*Surāmerayamajjapamādaṭṭhānā veramaṇī sikkhāpadaṃ samādiyāmi*," meaning the pledge of abstaining from intoxicating drinks. The eight-fold path taught by the

Buddha forbids selling alcoholic drinks as a livelihood.^[28] However, Buddha's approach was entirely different from Manu or the other previous moralists. Instead of criminalizing and punishing the drinker, Buddha introduced a new tactic; approaching them with compassion. While Dharmasūtras prescribed drinking hot boiling liquor to a drinker, Buddha's prescription was 'love'. As stated by Hassan^[24],

"...Needless to say the guiding and propelling force of this crusade rose from the teaching, the life, and the example of the Buddha himself. And what were the weapons with which this crusade was waged? Were the weapons those of terrorism, and strict penances, and unending fasts, and the drinking of hot boiling water or milk as prescribed by Manu? What cruel laws were imposed or what deterrent punishments threatened? We have seen how Manu and other legislators had failed to stamp out the drink evil; how was it then that the followers of Buddha succeeded? What witchcraft or black s Found magic did they use to cast such a spell over the people as has lasted to this day? It must be confessed that where the terrorism of Manu failed, the love of Buddha succeeded, for the weapons of this crusade were the very essence of Buddhism—a spirit of toleration with the erring; of sympathy with the weak; a spirit of humanity, of love for all."

Kauṭilya, the minister of Emperor *Chandragupta* (321- 297 BC) framed extensive laws to control the manufacturing, sale, and use of alcohol in the state and appointed Superintendent of Liquor.^[29] The superintendent was left with the power to centralize or decentralize the sale of both distilled and fermented alcohol. Liquor shops were allowed to function only in the center of the cities. *Kauṭilya* has introduced fines and taxes on alcohol. The offenders of the law were charged with a fine of 600 *panas* (ancient Indian coin). The quantity of

alcohol sold depended on the character and the nature of the buyer, and only those with a reputation of having a good character were allowed to take alcohol out from the shop. He ordered to arrest if anyone was observed with spending on liquor beyond their financial capacities. *Kauṭilya's* *Arthaśāstra* made provisions to maintain liquor shops against becoming crime spots. It was the responsibility of the tavern owner to maintain order in his shop. He was supposed to observe carefully every visitor coming to the shop. The tavern owner was held responsible for compensating the loss in case of any theft happens. A 5% tax was levied on those who deal with alcohol other than that of the king. The superintendent of liquor was entrusted to collect a daily tax from those who were permitted to manufacture on special occasions.^[29]

The first-ever medical model of alcoholism was proposed by the 2nd-century Indian medical scholar named *Charaka*. He made a clear distinction between excess and moderate drinking. He supported drinking in moderation and warned about the harmful consequences of overindulgence. *Charaka* stated, "if the person takes it in the right manner, in the right dose, in the right time and along with wholesome food, in keeping with his vitality and with cheerful mind, to him, wine is like ambrosia."^[23] *Charaka* named the disease of excessive drinking as *Madātyaya* and *Charaka Saṃhitā*, the medical text that he compiled, has an entire chapter (chapter 24) for the treatment of alcoholism.^[30]

Charaka neither moralizes alcoholism nor does any fear mongering. He explains the benefit of moderate use of wine and the harm accompanied by intemperance. If someone wishes to drink, he suggests drinking in 'wholesome,' i.e., "drink best wine along with various suitable fruits, wholesome green vegetables, salted and seasonal food items; various roasted meat of terrestrial, aquatic and flying animals and birds and various edibles prepared by the team of cooks" (*Charaka saṃhitā*, 24:11-19). To reduce the harm, he prescribes

different drinking methods to different types of personalities based on *tridoṣa* (the vital humors). He describes three stages of intoxication, and at reaching the third stage of intoxication, "the person becomes motionless like a cut wood, his mind being covered with narcosis and confusion, though living he appears as dead. He does not perceive the pleasurable senses nor does he recognize his friends. He does not get enjoyment for which wine is taken..." (Charaka Saṃhitā, 24:48-51). Charaka states, "In wine, there is etiology of confusion, fear, grief, anger, death along with insanity, narcosis, unconsciousness, epilepsy and convulsion. ...That is why those knowing the defects of wine despise it with all efforts" (Charaka Saṃhitā, 24:56, 58).

There are three types of alcoholism according to Charaka; *Vātika Madātyay*, *Paittika Madātyay* and *Kaphaja Madātyay* and specific treatment for each of them are explained in Charaka Saṃhitā. The treatment is designed based on the *tridoṣa theory*, and the major portion of the treatment includes medicated wines and a specific *pathya* based diet that includes meat, vegetables, fruits and herbs. Charaka's treatment was primarily moderation-based. The treatment suggested by him was aimed at reducing ethanol consumption and promoting the patient's overall health.^[31] A detailed description of alcoholism and its treatment gives a clear indication that a considerable number of people during that time were affected by alcoholism and related issues.^[23]

During the post-Gupta period (AD 750-1200), the habit of drinking has further spread to a significant portion of Indian society. Later, during the 13th century, emperor Alauddin Khalji tried to implement prohibition but failed as people found several ways to procure it illegally. Alcoholism continued to spread further, and during the 16th century, the third Mughal emperor Akbar implemented a more practical way of regulating the consumption. His plan of action was that of a harm

reduction approach where he opened several bars under administrative supervision, and a register was maintained to record the quantity of alcohol sold to every individual.^[23] With regard to the drinking habits of India during the Mughal period, Sing and Lal conclude with the following statement; "young and old, Hindu and Muslim, rich and poor, freely indulged in the two vices (wine and women) indifferent to religious prohibitions or consequences, as far as their means and health permitted them."

During British rule, there was a slow and steady rise in the availability and consumption of licit alcohol.^[32] Excise policies implemented by the colonial government significantly resulted in increased consumption of alcohol. In the year 1790, the English government began its excise regulations in Bombay.^[33] During that time, a quart of *mahua* spirit cost only half a penny. The British imposed a tax on it, justifying that an increased price for liquor would result in reduced consumption. However, as stated by Bishop John F Hurst, in his article, the real object of the British government in India was to "grind money out of a vice, and not to pulverize the vice."^[33] With the aim to fill the treasury of the empire, they established government distilleries called '*Sudder Still* system'. However, this system failed to bring the revenue the government wanted. Hence, the new *abkari* system called *Out Still* is introduced in 1876. The right of setting up Out Stills (stills outside government control) was sold to the highest bidders in auctions. This new system was successful, as the then Commissioner of Revenue exclaimed in his report; "The expansion of revenue under this system has been marvelous." The direct result of this system was increased availability and consumption of alcohol as the number of distilleries increased, and the successful bidders were allowed to distill anything and in any quantities.^[33] Later, efforts led by Mahatma Gandhi facilitated mass temperance movements in India, and prohibition was found a place in the

Directive Principles of the state policy with the approval of the Constituent Assembly of independent India.^[34]

Article 47 of the Constitution of India entrusts the states to take measures to implement prohibiting the use of all harmful intoxicating drinks and drugs except for medicinal purposes. However, the path paved by the British- filling the treasury by taxing alcohol- was followed by many Indian states. It is estimated that around 10-15% of the state's own tax revenue comes from liquor taxes, making it the second-largest source of own tax revenue.^[35] The governments are also blamed for being influenced by a powerful alcohol lobby through party memberships or exorbitant donations.^[36] At present, only in the states of Mizoram, Nagaland, Gujrat and Bihar and the union territory of Lakshadweep have alcohol prohibition in force in India.

Alcohol and alcoholism in Modern India

The National Mental Health Survey (NMHS 2016) conducted by NIMHANS in 2016 reported a prevalence rate of 22.4% for Substance Use Disorders in India. NMHS 2016 also reports a 4.6% prevalence for Alcohol Use Disorders.^[37] The Institute for Health Metrics and Evaluation, in its 2017 report, ranks alcohol as the 8th most driving factor for disability and deaths combined in India. The most recent survey report published by the National Drug Dependence Treatment Centre, AIIMS, New Delhi (NDDTC) at the beginning of 2019 states that 14.6% of the Indian population uses alcohol, and the men to women ratio is 17:1.^[38] The statistics published by them are alarming; it reports that almost 1 in every 5 Indian alcohol users needs professional help; in other words, 5.2 % of the Indian population between the age group of 10-75 needs urgent treatment. This survey reports that 2.7% of the Indian population is alcohol dependent. The findings from the 2016 and 2019 national survey reports suggest that alcohol, along with other substances, has a significant adverse effect on the social, economic and

health aspects of the country, and alcohol use constitutes the major cause for admission to medical facilities.^[39]

Development of evidence-based institutions and treatment

Earlier, individuals struggling with addiction were treated in non-specialty centers such as prisons and asylums in most countries. The first mental asylum in India was built during the 15th century by Mahmood Khilji in Madhya Pradesh.^[40] During the colonial period, lunatic asylums and mental hospitals were built in Bombay (1745), Calcutta (1787, Madras (1794) and Bihar (1795).^[41] The Bangalore Lunatic Asylum was established in 1847. As part of the attempt to embrace the paradigm shift to treat mental illness as a medical condition, the asylum was renamed as 'Mysore Government Mental Hospital' in 1925, which is now known as the National Institute of Mental Health and Neurosciences (NIMHANS, Bangalore). The department of psychology was established in 1954 and the Department of Psychiatric Social Work was started in NIMHANS in the year 1963. The De-addiction center (now known as 'Center for Addiction Medicine') started to function in NIMHANS in 1992, i.e., after 145 years of its inception.^[42] Another premier mental health institution, the Central Institute of Psychiatry (CIP), Ranchi was established in 1918, still does not have a specialization or department of de-addiction/addiction medicine (according to the CIP website). All India Institute of Medical Sciences (AIIMS) started a de-addiction centre in 1988.^[43]

A major breakthrough in the treatment of alcoholism was the introduction of Alcoholics Anonymous (AA) in 1935 in Ohio by Dr. Bill Wilson and Rob Smith. AA provided a program based on mutual aid and spiritual principles. The main components of AA were the *Twelve Traditions*, *Twelve Steps*, *Concept of Higher Power*, *Meetings* and *Sponsorship*. AA has promoted the disease concept of

alcoholism and the fellowship has grown internationally. It has helped not only the people affected, but also helped in how alcohol is viewed by the present generation.^[44] Over the year, the fellowship has grown to become the most known and universally available self-help organization. Its basic text, *The Big Book*, has been translated into 70 languages from the original English version, and the AA activity has reached over 120 countries with a total estimated number of 120300 groups.^[45] Several mutual support groups for other substances and fellowships for special populations emerged from the AA influence, and many of them are approved by Alcoholics Anonymous to use their twelve traditions and steps.^[46] In India, the first meeting of Alcoholics Anonymous took place in 1957, in Mumbai. The Big Book is available in twelve Indian languages.^[47] At present, meetings and services of AA is available in almost every corner of India

The development of modern scientific psychiatry in India began in the 1960s, and it was highly influenced by the British and later the American psychiatry.^[48] The early psychiatry textbooks are from England. Though substance use disorders were one of the leading public health issues, the various governments of independent India had ignored it for decades. However, alcohol and drug abuse have gained media attention in the 1970s and 80s and created public awareness. The apparent need for community-based rehabilitation services led to the development of several mental health NGOs like TTK foundation in Chennai in 1980 and TRADA-Total Response to Alcohol and Drug Abuse in 1987 in Kerala, and few others in other parts of the country.

The National Mental Health Program was launched by the government of India in 1982, aiming to make mental health services accessible to all, and in 1996, the District Mental Health program was launched as an instrument to achieve the NMHP goals.^[49] In 1999, the supreme court entrusted the National Human Rights

Commission to assess the functioning of government and private mental hospitals in different parts of the country. As per the report submitted by them, only 12 out of 37 state-run mental hospitals had separate substance misuse services.^[50] In the 1999 report, a suggestion put forward was to build separate de-addiction units in the government mental hospitals, but the interim observation in 2006 and 2008 found no further action being taken on it.^[51] The assessment in 2016 reported that more hospitals had specialized de-addiction services but were understaffed, lacked resources, and reported oversight from the monitoring bodies.^[52] The Ministry of Health and Family Welfare, Government of India, established the Drug De-Addiction Program in the year 1988, through which de-addiction centers were started in various government hospitals.^[53]

Currently, in India, the Ministry of Health and Family Welfare and Ministry of Social Justice and Empowerment are entrusted with leading the demand reduction measures, which also include treatment and rehabilitation of individuals with substance use disorders. As of 2017, there are about 398 Integrated Rehabilitation Centres for Addicts (IRCAs) in the country.^[54] Also, de-addiction services are available in most of the medical colleges and several district hospitals. Outnumbering the government facilities, several privately owned addiction treatment facilities are operating in the country. The current system of addiction treatment in India involves out-patient based brief interventions, medical detoxification, residential rehabilitation, substitution therapies, and community-oriented interventions, and it relies mainly on interventions developed in the west. Treatment comprises pharmacotherapy, individual psychotherapy, group-oriented interventions and family therapy. There are only three medications currently approved by the FDA for the treatment of alcohol use disorder; Acamprosate and Disulfiram and Naltrexone.^[55] Psychosocial interventions include motivational interviewing, cognitive

behavioral therapy, relapse prevention, trauma-focused work, dialectical behavioral therapy, twelve-step facilitation and recovery coaching. Recently, the wellness aspects such as nutrition, exercise, and several holistic therapies are incorporated into the treatment.

CONCLUSION

Reflecting on history confirms that hard-drinking is not entirely an import from western culture. There is a general notion that the evil of alcoholism is a concomitant of modernization and globalization. Though they played a role in the recent changing trends in alcohol consumption, there is evidence of habitual drunkenness in ancient India, and it has been prevailing in one form or the other in our culture. It would be logical to conclude that India had witnessed alcoholism long before America and even Europe, as distilled liquors were part of ancient India's recreational drinking long before the western world acquired the art of distilling. Strict restrictions on drinking were imposed on drinking spirituous liquors early in India. Regulations such as imposing liquor taxes existed on and off since the time of Kautilya. Attempts were made to prohibit alcohol during the time of Sage Manu. Charaka, during the pre-second century CE, proposed the first-ever medical compilation of explaining and treating alcoholism. Interestingly, his contributions are still considered classic and practiced in a branch of medicine called Ayurveda in India and many other parts of the world.

The approach to addiction has shifted from the war-on-drugs to the war-on-recovery and from a medical model to a holistic model. The western world has already embraced this shift. Most of the founding stones of the holistic approach to addiction are from ancient Indian knowledge. The efficacy of ancient practices such as Yoga and Meditation on addiction is undisputable now. The latest in the list is a technique that is taught by the Buddha called Vipassanā or, as it is known now, mindfulness. Finally, the scientific

community acknowledges that having a holistic approach towards SUDs increases the odds of a successful outcome. Interestingly, this shift has been brought by western researchers, as the Indian SUD researchers focussed primarily on adopting the western practices in the treatment system of the country.

An unexplored area that would significantly impact the treatment outcomes is incorporating Ayurveda in managing alcohol and drug addictions. Undoubtedly, the oldest medical model of addiction is from Charaka Samhitā. What is more interesting is that Charaka Samhitā is still considered one of the primary reference text for modern Ayurvedic practitioners, and most of the treatments and procedures explained in it is still being part of the current practice. The traditional knowledge of yoga and mindfulness has not been on the country's mainstream addiction treatment menu until recently. The main reason for it is that Indian psychiatry was mostly, if not totally, influenced by western practices. Indian clinicians probably introduced yoga and meditation in the treatment centers after it is being tested and implemented in western countries. Currently, the Indian scientific community emphasizes yoga and meditation as supplementary therapies for addiction treatment.

The central insight from this historical review is that future research should focus on exploring what Ayurveda can contribute to treating alcohol and other substance use disorders. The current medical model has its challenges, such as poor prognosis, the possibility of cross-addiction with prescription pills, and a high relapse rate. An Ayurvedic model of addiction treatment can be reintroduced or developed with research that would benefit the individuals and families who are troubled with addiction and related issues. The AYUSH Ministry of India has more roles in initiating and supporting such efforts.

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