

Tobacco Addiction in Adolescent Insight and Intervention

Dr. Mallamma H. Biradar¹; Dr. Shweta Nidagundi²;
Dr. Vijayalaxmi B. Benakatti³

Professor^{1,3}, Assistant Professor²

^{1,2,3}BLDEA's AVS Ayurveda Mahavidyalaya Hospital & Research Centre, Vijayapur, Karnataka.

Publication Date: 2026/02/26

Abstract:

➤ *Background:*

Since its 17th-century introduction to India via Portuguese trade routes, tobacco has undergone a rapid socio-cultural integration. This legacy has culminated in a contemporary public health crisis of unprecedented scale, responsible for upwards of 8 million annual deaths. Mortality data distinguishes between 7 million direct-user fatalities and 1.3 million deaths resulting from involuntary environmental exposure. The crisis is disproportionately concentrated in low- and middle-income demographics, which house 80% of the global user base and bear the brunt of the resulting morbidity and economic strain.

➤ *Objectives:*

To elaborate on tobacco dependency in adolescents and study Tobacco's effects and management in *Ayurveda* and contemporary medicine.

➤ *Data Source:*

Data was synthesized from clinical research regarding drug addiction and management across indexed and non-indexed publications. Supplemental sources include primary *Ayurvedic Samhitas* with traditional commentaries and authoritative textbooks spanning both *Ayurvedic* and contemporary medical systems.

➤ *Review Methods:*

Above mentioned data sources were screened and reviewed. Tobacco dependency in Adolescent were listed out.

➤ *Conclusion:*

Today's young adults stand at the epicentre of the tobacco epidemic, increasingly vulnerable to the dangerous glamorization of both combustible and smokeless products. We must urgently shield this generation from the predatory influence of misleading advertisements and pervasive cross-platform promotion. Now is the time for proactive intervention; when it comes to addiction, prevention is not just a strategy—it is a necessity.

Keywords: *Adolescents, Tobacco, Addiction, Effects, Ayurveda, Intervention.*

How to Cite: Dr. Mallamma H. Biradar; Dr. Shweta Nidagundi; Dr. Vijayalaxmi B. Benakatti (2026) Tobacco Addiction in Adolescent Insight and Intervention. *International Journal of Innovative Science and Research Technology*, 11(2), 1511-1517. <https://doi.org/10.38124/ijisrt/26feb748>

I. INTRODUCTION

The tobacco crisis in India is not merely a modern health issue but a deeply rooted socio-cultural legacy. Introduced by the Portuguese in the 17th century, tobacco has transitioned from a foreign commodity to a localized "socio-cultural milieu." This long-standing presence is reflected in ancient Indian thought; Ayurveda conceptualizes addiction as

Vyasana (vices/addictions), as documented in the Syainika Shastra. This framing suggests that modern tobacco control must address centuries of cultural normalization. ^[1] Today, it is recognized primarily as a significant addiction a chronic, relapsing disorder defined by compulsive seeking and use despite devastating consequences ^[2]. The tobacco epidemic remains one of the most significant public health crises in history, claiming over 8 million lives annually. ^[3] While

direct tobacco use accounts for more than 7 million of these deaths, approximately 1.3 million result from second-hand smoke exposure among non-smokers. Notably, 80% of the world's 1.3 billion tobacco users reside in low- and middle-income countries, where the resulting burden of illness and mortality is most severe. ^[4] Global data indicates that approximately 37 million adolescents aged 13–15 consume tobacco. Notably, in several jurisdictions, the prevalence of e-cigarette use among minors now surpasses that of the adult population. ^[5]

As of 2022, an estimated 253 million individuals aged 15 and older in India—comprising 200.2 million males and 53.5 million females—were tobacco users. These figures establish India as the second-largest tobacco consumer globally and the largest in the WHO South-East Asia Region. With over a quarter-billion users, India faces one of the most significant tobacco-related public health burdens in the world. ^[6] Epidemiological data indicates that tobacco use results in premature mortality for 50% of its consumers ^[7]. In the Indian context, the public health burden is characterized by approximately 3,600 deaths per day, highlighting an urgent need for cessation interventions ^[8]. The tobacco industry is systematically targeting the next generation through sophisticated marketing campaigns, leveraging digital media and 'harmless-looking' products tailored to adolescent appeal. This strategy aims to incite a new wave of nicotine dependency. In response, the 2024 World No Tobacco Day theme, 'Protecting Children from Tobacco Industry Interference,' ^[9] saw the WHO Country Office for India launch a strategic awareness campaign. By exposing these predatory tactics, the initiative seeks to safeguard future generations and ensure a sustained decline in tobacco prevalence.

➤ *Aims and objectives:*

To expatiate on tobacco dependency in adolescents and to study the effects of tobacco and its management in both Ayurveda and contemporary medicine.

II. MATERIALS AND METHODS

➤ *This Study Employs an Integrative Review Methodology, Synthesizing Traditional Ayurvedic Concepts with Modern Clinical Data:*

• *Clinical Research:*

Evidence was gathered from research on addiction, withdrawal, and management published in both indexed and non-indexed journals.

• *Classical Literature:*

Primary Ayurvedic sources included the Samhitas with their respective commentaries and traditional textbooks.

• *Modern Texts:*

Contemporary medical literature and epidemiological databases (WHO, GATS) were consulted to provide a neurobiological and statistical foundation for the analysis.

➤ *Tobacco Usage:*

Tobacco use in India is exceptionally diverse, encompassing a wide array of smoking and smokeless delivery methods. This variety reflects both traditional habits and modern consumption trends.

• *Smoking Tobacco:*

Beyond conventional cigarettes, traditional smoking remains a significant public health factor. It is commonly consumed via:

- ✓ Beedis: Hand-rolled tobacco leaves.
- ✓ Indigenous Devices: Traditional implements such as the Hookah, Hookli, Chhutta, Dhumti, and Chillum.

• *Smokeless Tobacco:*

The smokeless category is equally varied and deeply culturally embedded. Common forms include:

- ✓ Chewing & Topical: Betel quid (Pan), Mishri, Khaini, and Gutka.
- ✓ Nasal: Snuff.
- ✓ Additives: Tobacco also serves as a primary potent ingredient in many Pan Masala preparations.

Statistical Distribution of Users According to the most recent data from the Government of India's National Sample Survey, India is home to approximately 184 million tobacco consumers. The consumption profile follows a distinct About 40% of them use smokeless Tobacco, 20% consume cigarettes, and another 40% smoke beedis ^[10].

➤ *Tobacco Use in Adolescence (Age 10 Yrs -19 Yrs) ^[11]:*

Adolescents and children serve as the primary targets for the tobacco industry's recruitment strategies. By fostering early-onset dependency, the industry ensures a "replacement generation" of long-term users. The scale of this crisis in India is underscored by data from the National Sample Survey Organization (NSSO), which estimates that approximately 20 million children aged 10–14 are already addicted to tobacco. ^[12] To this staggering figure, approximately 5,500 new users are added daily, culminating in two million new consumers annually. Furthermore, the current prevalence of tobacco use among Indian high-school students (aged 13–15) is alarmingly high, reaching 18.15%. ^[13] Geographic and gender disparities in tobacco use are stark: the highest prevalence is recorded among males in the North Eastern states (34%), while the lowest is found among females in Western India (4.9%). According to the Global Youth Tobacco Survey (GYTS) conducted in Karnataka, the point prevalence of tobacco use among 13–15-year-olds is 4.9%, with a lifetime prevalence of 5.1%. ^[13] The majority of adolescent smokers report experiencing withdrawal symptoms during cessation attempts. Over the past three decades, numerous epidemiological surveys across various regions of India have investigated the prevalence of tobacco use among youth. These studies have encompassed diverse populations, including school and college students, medical trainees, and street children. ^[14]

Table 1 Determinants of Tobacco Onset Among the Indian Youth [15,16,17,18].:

Sl. No	Determinants	Sl. No	Determinants
1	Familial prevalence of nicotine dependency among elder kin	9	Underlying Emotional And Psychological Problems
2	Peer Influence	10	Sleek Marketing Strategies
3	Experimentation	11	Poor School Performance
4	Easy Access to Such Products	12	Truancy
5	Personality Factors	13	School Dropouts
6	Accompanied Risk-Taking Behaviours	14	Diminished achievement motivation.
7	Generalized anxiety and persistent low mood	15	Various Media Advertisements by television, and the roadside hoardings
8	Low Self-Esteem		

III. HAZARDOUS EFFECTS OF TOBACCO

➤ *In Ayurveda:*

In Ayurvedic toxicology, tobacco is identified as Tamala Patra and classified under Sthavara Visha. While conspicuously absent from the classical Brihatrayi, it was formally integrated during the Nighantu Kala. Notably, Acharya Yogaratnakara elaborated on its properties, detailing both its limited therapeutic applications and its significant toxicological profile.

According to Yogaratnakara, excessive tobacco consumption induces acute and chronic intoxication, manifesting through several hazardous systemic effects:

- Intoxication & Giddiness: Disruption of sensory and mental clarity.
- Gastrointestinal Distress: Persistent vomiting and induced purgation.
- Pitta Aggravation: Intense provocation of the Pitta Dosha, leading to inflammatory conditions.
- Shukrakshaya: The depletion of reproductive fluids (Shukra Dhatu), impacting vitality and fertility.

• *Oral Manifestations: Sarvasara Roga*

Due to its Tikshna and Pitta-Vardhaka properties, tobacco is a primary causative factor for Sarvasara Roga (specifically Mukhapaka). This condition presents clinically as:

- ✓ Stomatitis: Extensive mouth ulcers and generalized redness.

- ✓ Mucosal Erosion: Progressive erosion of the buccal mucosa.
- ✓ Burning Sensation: Acute discomfort within the oral cavity, characteristic of Pitta vitiation. [19]

Tamala patra has Laghu, Tikshna, Ushna, Vyavayi, Vikasi, Tikta- Katu rasa, Katu Vipak and Maadak Prabhav[20]. All these properties of Tobacco are opposite qualities of Oja Guna, leading to Oja Kashaya. In the Sushruta Samhita (Kalpa Sthana), the concept of Dushi Visha refers to a "latent" or "cumulative" poison. Unlike acute toxins that act immediately, Dushi Visha is characterized by its ability to bypass initial detoxification and accumulate within the Dhatus over prolonged periods of persistent exposure. [21].

➤ *In the Contemporary:*

Tobacco contains nicotine as its primary active ingredient. It is consumed in both smoking and smokeless forms. Smokeless tobacco contains more than 3,000 hazardous chemicals, while tobacco smoke contains around 4,000 harmful substances, many of which are carcinogenic. Tobacco products contain toxic substances such as carbon monoxide, acetone, ammonia, cadmium, arsenic, methane, and tar. High levels of benzo[a]pyrene found in products like mishri, snuff, and chewing tobacco can damage DNA, which normally helps protect cells from developing cancer.

Nicotine is the primary cause of addiction. It is absorbed through the mouth into the bloodstream, reaches the brain, and alters dopamine and noradrenaline levels. This produces a brief pleasurable sensation, or “nicotine rush,” and temporary relief from discomfort. Because the effect is short-lived, users repeatedly consume tobacco to maintain these physical and psychological effects. [22]

Table 2 Adverse Health Effects of Tobacco[23].

Adverse Health Outcomes Leading To Death Associated With Tobacco Consumption	Other Health Outcomes Related To Tobacco Consumptions	
Ischemic Heart Disease	Coronary Artery Disease	Crohn's Disease
Chronic Obstructive Pulmonary Disease	Erectile Dysfunction	Ulcerative Colitis
Asthma	Infertility	Thrombosis
Stroke	Macular Degeneration	Rheumatoid Arthritis
Lower Respiratory Infections	Tooth And Gum Diseases	Affected Bone Health
Tracheal, Bronchus, And Lung Cancer	Wrinkling Of The Skin	Behavioural And Learning Disorders
Oesophageal Cancer	SIDS	Elevated LDL And Lowered HDL
Tuberculosis	Leukoplakia	Halitosis
Lip And Oral Cavity Cancer	Erythroplasia	Diabetes Mellitus

IV. MANAGEMENT

➤ *Preventive Measures:* ^[24]

To assist nations in fulfilling their obligations under the Framework Convention on Tobacco Control (FCTC), the WHO established the MPOWER package. These evidence-based policies are specifically designed to reduce tobacco prevalence in alignment with Article 14 of the WHO FCTC. MPOWER acronym stands for to show the scope of these "proven policies":

- M: Monitor tobacco use and prevention policies.
- P: Protect people from tobacco smoke.
- O: Offer help to quit tobacco use (This is the core of Article 14).
- W: Warn about the dangers of tobacco.
- E: Enforce bans on tobacco advertising, promotion, and sponsorship.
- R: Raise taxes on tobacco.

India is a signatory to the FCTC. The Government of India passed the Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act in 2003.

➤ *Psychological Interventions Techniques* ^[25]

Some of the techniques that are effective in tobacco cessation are:

- Behaviour therapy
- Acceptance and commitment therapy (ACT)
- Motivational enhancement therapy (MET)
- Contingency management (pairing positive reinforcement to desired behaviour or outcome).

Table No - 3: PSYCHOSOCIAL APPROACHES ^[26] - The Five A's and Five R's is a five to fifteen-minute research-based counselling approach that has proven global success.

Table 3 Psychosocial Approaches ^[26]

FIVE A's - Plan to Quit	FIVE R's - Ready to Quit
Ask- about tobacco use	Relevance- why quitting is relevant to the patient
Advice- "Strongly Urge All Tobacco Users To Quit."	Risk- identifies potential negative consequences of tobacco use.
Assess- Evaluate the patient's stage of change regarding cessation.	Rewards- identify potential benefits of quitting Tobacco
Assist- This is the "Quit Plan" phase. provide goals, set a quit date, develop a quit plan, consider cessation medications, identify triggers, build, maintain and buffering family-friends-social support, and use community resources.	Roadblocks- identify barriers or impediments to quitting
Arrange- for follow up	Repetitions- repeated quit attempts

➤ *Pharmacotherapy* ^[26] :

Tobacco cessation medications can be broadly divided into two groups:

- Nicotine Replacement Therapy (NRT)
- Non-Nicotine Replacement Therapy

• *Nicotine Replacement Therapy:*

Nicotine Replacement Therapy (NRT) works by substituting the nicotine found in tobacco with an approved, controlled delivery system. This helps users manage withdrawal symptoms and cravings—the primary hurdles in the cessation process. Unlike the rapid "spike" of nicotine from a cigarette, which hits the brain in seconds, NRT provides a slower, more stable increase in blood nicotine levels. Because the delivery is more gradual, success requires both motivation and patience from the user.

The process involves carefully monitoring and tapering the dosage over time to wean the body off its chemical dependency. Whether using patches, gum, lozenges, inhalers, or nasal sprays, all forms of NRT have demonstrated comparable success rates in helping individuals quit for good.

• *Non-Nicotine Replacement Therapy:*

This includes medication and combined

✓ *Bupropion:*

Bupropion is a non-nicotine pharmacological treatment for tobacco dependence. As an atypical antidepressant, it functions through both dopaminergic and adrenergic mechanisms to reduce cravings. Patients should typically set a "quit date" within 7 to 14 days of beginning treatment. This window is intentional: the steady-state plasma concentrations of bupropion and its active metabolites are generally reached approximately 8 days after the initiation of therapy, ensuring maximum therapeutic support when the user stops tobacco intake.

✓ *Varenicline:*

This is a partial nicotine agonist that selectively binds to the alpha (4) and beta (2) nicotinic acetylcholine receptors in the brain. It lessens the physical pleasure from taking in nicotine and helps lessen the symptoms of nicotine craving. Tobacco use may be stopped one week after initiating treatment with Varenicline.

• *Combination Therapy:*

The best approach for treating tobacco dependence is a combination of behavioural and pharmacological therapies. Since these therapies work through different mechanisms, they may provide complementary and potentially additive effects. Nicotine Replacement Therapies (NRT) combined with supportive counselling are the most commonly used and extensively applied treatment methods. While self-help

strategies alone have a minimal impact on quit rates, individual or combined pharmacotherapy and counselling either alone or together can significantly enhance cessation success.

V. DISCUSSION

Daivavyapashraya Chikitsa is one of the mystical therapies mentioned under Trividha Chikitsa. Although it holds the first position, it is often not given due importance in modern treatment approaches. This therapy nurtures the inner self and promotes peace, enhancing Sattva Guna. Due to its Achintya Prabhava, it helps to clear mental blockages, fostering tranquility and serving as an effective pathway for managing withdrawal symptoms. Sadvrta- Life's behavioural and ethical aspects directly impact an individual's health. It is now well understood that our thoughts influence our mood and alter our biochemistry. Additionally, they shape our perception of ourselves and the World around us. Ayurveda emphasizes this through the concept of balance between Sharirika Doshas and Manasika Doshas, as they are interrelated and essential for maintaining overall health and immunity. Therefore, one's code of conduct and behaviour directly affects the mind, ultimately influencing mental health. Evidence supports the interaction between the mind, body, and immune system, indicating that a positive attitude, achieved through proper conduct and behaviour, enhances immunity. Shatkarma – Shodhana through shatkarmas combined with internal medicines, has shown promising results in managing addiction, systemic disorders, and associated ailments. Among the Shatkarmas, Shankhprakashalana (Dhauti) is a yogic cleansing technique known as 'intestinal purification' or 'intestinal wash. This Hatha Yoga practice involves consuming a large quantity of saline water and performing specific yoga postures to stimulate the digestive tract and aid in toxin elimination. Achara Rasayana - Respecting elders, speaking the truth,

avoiding anger, maintaining inner peace, practicing mantras and japa, showing kindness to living beings, ensuring balanced sleep, and consuming a nutritious diet, including milk and ghee, contribute to overall well-being. These practices enhance shrestha buddhi, medha, and smruti while promoting the development of superior dhatu. Achara Rasayana not only serves as a preventive measure but also acts as a therapeutic approach, helping to maintain the efficiency of the body's defence mechanisms. Dhatura Lavana medicine is not found in the classical texts or literature of Ayurveda. However, it is widely used by folklore practitioners for alcohol dependence as an anti-craving remedy under tadhathakari chikitsa in madakari avastha. Tadhathakari Chikitsa refers to the therapeutic approach of using substances with similar properties to counteract diseases caused by doshas with analogous attributes. Saindhava Lavana, a key ingredient in dhatura lavana, possesses tridosha shamaka, sukshma, vyavayi, teekshna, and chedana properties, which aid in clearing obstructions in the manovaha srotas. This, in turn, helps restore dhi, dhriti, and smriti, which are often impaired. Numerous studies on Datura metal have highlighted its anticancer, antioxidant, anti-inflammatory, and immunomodulatory properties. Considering these factors, its application in tadhathakari chikitsa may be beneficial in addressing the adverse effects of tobacco consumption. Padanshik Karma is a unique technique designed to prevent the abrupt withdrawal of harmful substances, such as narcotics. Detoxification should be done by gradually tapering or substituting the substance with appropriate medications. In Agada Prayoga (antidotal therapy) tobacco is classified as sthavara visha (plant-based poison), Acharya Sushruta in the Kalpa Sthana of the Sushruta Samhita has referenced the inhalation of poisonous smoke, nasya/dhoomapana, and the concept of dushi visha (cumulative poison). Based on these principles, tobacco consumption can be effectively managed by using agada prayoga.

Table 4 Different Treatment Modalities in Ayurveda.

Daiva vyapashryaya ^[27]		Mantra , Mani, Mangala, Niyama, Swasthyayana, Pranipata, Prayaschitta, Gamana
Yukti vyapashraya	ANTAHA PARIMARJANA	Shodhana - Snehana, Swedana, Virechana
	BAHIRARIMARJANA	Shamana - Sumukti syrup, Saraswatarista Lavangadi vati, Brahmi Vati etc . Gandusha, kavala, Shiropichu, Sarvanga Abyanga, Udwartana, Sarvanga dhara.
Satvavajaya chikitsa (psychotherapy)	Psycho physical exercise designed to achieve a regulatory mechanism or balance / equilibrium over human psycho in dealing with environment stressors and emotional stressors (Manoartha) - Chintya, Vicharya, Uhya, Dharya, Sankalpa, Dhi Dhairya Atmadi Jnana, Jnana, Vijnana, Dhairya, smriti, samadhi.	
OTHER SPECIAL APPROACHES (By Different Clinicians From Different Parts of India)	<ul style="list-style-type: none"> • Sadyo vama • New-Approach-Shiro mardana –with bhrahmi, sarpagandha and jatamamsi. • Lalata basti • Dhoopana- manashiladi , shirishadi. • Withdrawal of addicted drug by Padanshik Karma^[28]- Abrupt abstinence can lead to withdrawal. • Withdrawal-First line of treatment - Santarpanjanya chikitsa, deepana, pachana, abyanga, takradhara, & Uses of anticraving like dadima, kharjura. & Administration of medhya, nidrajanaka dravyas. • Vamana, Virechana and Basti, • Anxiolytic - ashwagandha, • Antidepressant –Glycowithanolides of Withania somnifera. • Anti craving other drugs like- dadima, kharjura 	

	<ul style="list-style-type: none"> Shankhapushpi, Brahmi, Jatamamsi etc. Agada Prayoga- Biwadi agada, Dooshi vishari agada , Kalyanaka ghruta, Lakshadi Dhumpan , Ativishadi ghruta Nasya ,Medhya Rasayana. Ghrta Preparation- In Hyper active - Kalyanaka Ghrta. In depressed- Panchagavya Ghrta In Craving- Bhramhi Ghrta Folklore Medicines- Novel Anti Craving Drug - Dhattura lavana^[29,30]. • Shatkarmas^[31] (The yogic cleansing techniques) Dhauti , Basti , Neti, Nauli , Kapalabati & Trataka . • Acharya Rasayana - refers to "Behavioral Rasayana"—the practice of ethical and emotional rejuvenation through conduct. • Sadvrtt - refers to the Social and Moral Code of Conduct—the daily "right living" habits that keep a person grounded. sharirika sadvritta, manasika sadvritta & dharmika sadvritta . • Harshan Kriya (Recreational Therapy)^[31] - Improving Physical, Emotional & Cognitive equality. • Yoga and Meditation^[31]– anuloma, viloma, bhramari pranayama & swasana. • Ahara^[32] - Pathya Ahar according to his constitution, working condition, and geographical location Vata-pitta hara , Sattvic Foods: Fresh fruits, steamed vegetables, whole grains, and mung dal, Hydration, avoiding Rajasic ahara Kharjuradi Mantha, Kshira , Petha, Rajgiraladdu, Laja etc.
--	--

VI. CONCLUSION

Young adults represent the most vulnerable demographic in the ongoing battle against tobacco addiction, a crisis fueled by the dangerous glamorization of both smoking and smokeless tobacco. It is imperative to shield our youth from predatory marketing and the pervasive promotion of tobacco across digital and social platforms, reinforcing the timeless principle that prevention is better than cure. To address the complexities of dependency, ancient Ayurvedic texts offer profound insights into withdrawal syndromes and the systemic imbalances caused by substance abuse. By focusing on restoring equilibrium within the tridosha (vata, pitta, and kapha) and the triguna (sattva, rajas, and tamas), an integrated treatment approach—combining modern pharmacotherapy like Bupropion with traditional wisdom—provides the symptomatic relief and holistic healing essential for long-term recovery.

REFERENCE

- [1]. Drug Misuse and Addiction. NIDA [Internet]. 2020 Jul 6; Available from: <https://nida.nih.gov/publications/drugs-brains-behavior-science-addiction/drug-misuse-addiction>
- [2]. <https://www.wisdomlib.org/definition/vyasana>
- [3]. St Claire S, Gouda H, Schotte K, Fayokun R, Fu D, Varghese C, Prasad VM. Lung health, tobacco, and related products: gaps, challenges, new threats, and suggested research. *Am J Physiol Lung Cell Mol Physiol.* 2020 May 1;318(5):L1004-L1007. doi: 10.1152/ajplung.00101.2020. Epub 2020 Apr 1. PMID: 32233791; PMCID: PMC7272734
- [4]. Tobacco [Internet]. 2023 [cited 2025 Jan 17]. Available from: <https://www.who.int/news-room/fact-sheets/detail/tobacco> .
- [5]. The tobacco industry is targeting the youth [Internet]. 2024 [cited 2025 Jan 20]. Available from: <https://www.who.int/india/news/feature-stories/detail/the-tobacco-industry-is-targeting-the-youth>
- [6]. State of Smoking and Health in India [Internet]. 2024 [cited 2025 Jan 17]. Available from: <https://globalactiontoendsmoking.org/research/tobacco-around-the-world/india/>
- [7]. The tobacco industry is targeting the youth [Internet]. 2024 [cited 2025 Jan 20]. Available from: <https://www.who.int/india/news/feature-stories/detail/the-tobacco-industry-is-targeting-the-youth>
- [8]. The tobacco industry is targeting the youth [Internet]. 2024 [cited 2025 Jan 20]. Available from: <https://www.who.int/india/news/feature-stories/detail/the-tobacco-industry-is-targeting-the-youth>
- [9]. World No Tobacco Day 2024: protecting children from tobacco industry interference[Internet].2024[cited 2025 Jan 20]. Available from: <https://www.who.int/europe/news-room/events/item/2024/05/31/default-calendar/world-no-tobacco-day-2024--protecting-children-from-tobacco-industry-interference> .
- [10]. Chadda RK, Sengupta SN. Tobacco use by Indian adolescents. *Tob Induc Dis.* 2002 Jun 15;1(1):8. doi: 10.1186/1617-9625-1-8. PMCID: PMC2669568
- [11]. Adolescent health[Internet].[cited 2025 Jan 25]. Available from: <https://www.who.int/health-topics/adolescent-health>
- [12]. Chadda RK, Sengupta SN. Tobacco use by Indian adolescents. *Tob Induc Dis.* 2002 Jun 15;1(1):8. doi: 10.1186/1617-9625-1-8. PMCID: PMC2669568.
- [13]. A V, P M, A KM, R S. Exploring an effective tobacco prevention program for Indian adolescents. *Public Health [Internet].* 2015 [cited 2022Jan.28];129:23-28. <https://doi.org/10.1016/j.puhe.2014.11.010>.

- [14]. Chadda RK, Sengupta SN. Tobacco use by Indian adolescents. *Tob Induc Dis.* 2002 Jun 15;1(1):8. doi: 10.1186/1617-9625-1-8. PMID: PMC2669568
- [15]. The tobacco industry is targeting the youth [Internet]. 2024 [cited 2025 Jan 20]. Available from: <https://www.who.int/india/news/feature-stories/detail/the-tobacco-industry-is-targeting-the-youth>
- [16]. State of Smoking and Health in India [Internet]. 2024 [cited 2025 Jan 17]. Available from: <https://globalactiontoendsmoking.org/research/tobacco-around-the-world/india/>
- [17]. Chadda RK, Sengupta SN. Tobacco use by Indian adolescents. *Tob Induc Dis.* 2002 Jun 15;1(1):8. doi: 10.1186/1617-9625-1-8. PMID: PMC2669568.
- [18]. Shiraz Z. Breaking the cycle of addiction: Innovative approaches to tobacco cessation. *Hindustan Times* [Internet]. Vol CI No 24 ed. New Delhi; 2023 Jun 13 [cited 2025 Jan 16]; Available from: <https://www.hindustantimes.com/lifestyle/health/breaking-the-cycle-of-addiction-innovative-approaches-to-tobacco-cessation-101686648418548.html>
- [19]. Shree Laxmipatishastri, Yogratnakar, Dhanyaadiphal- kandshakhguna /3-5, Varanasi; *Chaukhamba orientalia*;2017. P-34-35
- [20]. Shree Laxmipatishastri, Yogratnakar, Dhanyaadiphal- kandshakhguna /3-5, Varanasi; *Chaukhamba orientalia*;2017. P-34-35
- [21]. Sushrutacharya, Sushrut Samhita, Hindi Commentary by Kaviraj Ambikadutta Shastri, Part 1, Chaukhamba Sanskrit Sansthan Publication, 2007, Kalpasthan, chapter number 2, Sthavar Vish Vidnyaniya kalpa, verse number 25-26, Page no 25.
- [22]. Kapase, S.V., Adelka r, G.M. and Deshpande, A.C. (2020) 'Conceptual Study Of Effect Of Tobacco On Oja', *Global Journal For Research Analysis*, 9(6). doi:10.36106/gjra.
- [23]. Committee on the Public Health Implications of Raising the Minimum Age for Purchasing Tobacco Products; Board on Population Health and Public Health Practice; Institute of Medicine; Bonnie RJ, Stratton K, Kwan LY, editors. *Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products.* Washington (DC): National Academies Press (US); 2015 Jul 23. 4, The Effects of Tobacco Use on Health. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK310413/>
- [24]. Tobacco [Internet]. 2023 [cited 2025 Jan 17]. Available from: <https://www.who.int/news-room/fact-sheets/detail/tobacco> .
- [25]. Shiraz Z. Breaking the cycle of addiction: Innovative approaches to tobacco cessation. *Hindustan Times* [Internet]. Vol CI No 24 ed. New Delhi; 2023 Jun 13 [cited 2025 Jan 16]; Available from: <https://www.hindustantimes.com/lifestyle/health/breaking-the-cycle-of-addiction-innovative-approaches-to-tobacco-cessation-101686648418548.html>
- [26]. Rajkumar et al. (2011) Tobacco dependence treatment guidelines - ministry of India. Edited by R. Ruhil. Available at: <https://ntcp.mohfw.gov.in/assets/document/Guideline-manuals/Tobacco-Dependence-Treatment-Guidelines.pdf> (Accessed: 17 January 2025).
- [27]. Krishna S, Rajashekhar C, Unlocking the clinical utility of Daivavyapashraya Chikitsa a mystical therapy in the present era - A Bird View. *J Ayu Int Med Sci.* 2023;8(10):167-178. Available From <https://jaims.in/jaims/article/view/2751>
- [28]. Jayvindra S, Narender C, Sachin kumar, Daya Shankar S. Drug Addiction and its Ayurveda and Yoga Management: Case Study. *Ayushdhara* [Internet]. 2022May12 [cited 2025Jan.26];9(2):31-6. Available from: <https://ayushdhara.in/index.php/ayushdhara/article/view/922>
- [29]. Islam T, Ara I, Islam T, Sah PK, Almeida RS, Matias EFF, Ramalho CLG, Coutinho HDM, Islam MT. Ethnobotanical uses and phytochemical, biological, and toxicological profiles of *Datura metel* L.: A review. *Curr Res Toxicol.* 2023 May 13;4:100106. doi: 10.1016/j.crtox.2023.100106. PMID: 37228329; PMID: PMC10203738.
- [30]. Amrutha O, Govinda SK, Ajith KG, Savitha H. Dhattura Lavana: An Eccentric Salt Preparation in Folklore. *J. Drug Delivery Ther.* [Internet]. 2019 Jun. 15 [cited 2025 Jan. 25];9(3-s):867-9. Available from: <https://jddtonline.info/index.php/jddt/article/view/2831>
- [31]. Jayvindra S, Narender C, Sachin kumar, Daya Shankar S. Drug Addiction and its Ayurveda and Yoga Management: Case Study. *Ayushdhara* [Internet]. 2022May12 [cited 2025Jan.26];9(2):31-6. Available from: <https://ayushdhara.in/index.php/ayushdhara/article/view/922>
- [32]. Sharma, M. (2021) 'Alcohol addiction management through ayurveda: A case report', *Annals of Ayurvedic Medicine*, 10(4). doi:10.5455/aam.51042.