

Addressing the Growing Concern of Substance Abuse Among Adolescents: A Call to Action

Adolescence is the transitional period between childhood and adulthood, spanning the ages of 10 to 19. Adolescents experience rapid physical, cognitive, and psychosocial changes, which influence their emotions, thoughts, and decision-making. Thus, it is a distinct period of development and a crucial one for laying the foundations for long-term health.¹

During this phase, adolescents can develop patterns of high-risk behavior and habits, of which substance abuse is the most damaging, adversely affecting their physical, psychological, and social well-being.² The use of tobacco, alcohol, and other substances among adolescents is a major public health concern in several parts of the world, including India. According to a survey conducted by the National Sample Survey Organisation, about 20 million children aged 10–14 are estimated to be tobacco users, with around 5500 new users being added every day.³ The average age for initiation of tobacco use was found to be

12.3 years and for alcohol usage at 13.6 years among adolescents.⁴ This leads to a vicious cycle in which these people become preoccupied by their addictions rather than functioning as productive members of society.

Multiple factors facilitate the susceptibility of young people to substance abuse such as peer pressure, family history, media influence, easy access, and mental health issues. Peer pressure from friends was reported as the single most common reason for initiation among nicotine users.⁵ Another study by Tsering et al. reported that the primary driver of continued drug use amongst urban users was the ease of access to substances, while rural users cited “relief from tension” as their main motivation.⁶ On the other hand, “moral sense” and “fear of health problems” were the most common reasons stated for quitting among both urban and rural users implying that parental attitude shaping and awareness of the negative effects of use can encourage users to cease their habits indirectly.⁶ Further, there is also a correlation between adolescent substance abuse and the patterns of disengaged family systems, parenting styles centered on rejection and overprotection, and the existence of incomplete family systems.⁷

Regular drug use by teenagers is known to be associated with alterations in brain function and diminished neurocognitive ability with heavy alcohol use in adolescents being linked to a decline in attention, executive functioning, and information processing.⁸⁻¹⁰ In contrast, marijuana use has been associated with lower levels of cognitive flexibility, visual scanning, error commission, and working memory.¹¹ Additionally, it has been shown to have a role in mental health conditions such as bipolar disorder, depression, psychosis, poor school performance, risk of motor vehicle accidents, and chronic illnesses like

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MI, stroke, and bronchitis.¹¹⁻¹⁴

To achieve wholesome adolescent health, we need to adopt a multidimensional approach with special emphasis on mental health, behavior change of communication towards a healthy lifestyle, and a positive social environment to acquire life skills to implement prevention programs against substance abuse for

children, which requires continuous community-based efforts and legislation. Prioritizing modifiable risk factors and strengthening protective variables through family, school, and community preventive programs should be the focus of these coordinated efforts toward early identification, awareness, and prevention initiatives.¹⁵

References

1. Patton GC, Sawyer SM, Santelli JS, Ross DA, Afifi R, Allen NB, Arora M, Azzopardi P, Baldwin W, Bonell C, Kakuma R. Our future: a Lancet commission on adolescent health and wellbeing. *The Lancet*. 2016 Jun 11;387(10036):2423-78.
2. Bukstein OG. Practice parameter for the assessment and treatment of children and adolescents with substance use disorders. *Journal of the American academy of child & adolescent psychiatry*. 2005 Jun 1;44(6):609-21.
3. Patel DR. Smoking and children. *The Indian Journal of Pediatrics*. 1999 Nov;66:817-24.
4. Tikoo VK, Dhawan A, Pattanayak RD, Chopra A. Assessment of pattern and profile of substance use among children in India. National Commission for Protection of Child Rights (NCPCR) by National Drug Dependence Treatment Centre [NDDTC], All India Institute of Medical Sciences [AIIMS], New Delhi. 2013.
5. Malhotra S, Kakkar N, Ghosh A, Khan I. Smoking and Smokeless Tobacco Use in Children & Adolescents: Clinical Profile and Comparison. *Journal of Indian Association for Child and Adolescent Mental Health*. 2016 Apr;12(2):121-42.
6. Tsering, Dechenla; Pal, Ranabir; Dasgupta, Aparajita. Substance use among adolescent high school students in India: A survey of knowledge, attitude, and opinion. *Journal of Pharmacy and Bioallied Sciences* 2(2):p 137-140, Apr-Jun 2010. | DOI: 10.4103/0975-7406.67005
7. Matejevic M, Jovanovic D, Lazarevic V. Functionality of family relationships and parenting style in families of adolescents with substance abuse problems. *Procedia-Social and Behavioral Sciences*. 2014 Apr 22;128:281-7.
8. Squeglia LM, Jacobus J, Tapert SF. The influence of substance use on adolescent brain development. *Clinical EEG and neuroscience*. 2009 Jan;40(1):31-8.
9. Thoma RJ, Monnig MA, Lysne PA, Ruhl DA, Pommy JA, Bogenschutz M, Tonigan JS, Yeo RA. Adolescent substance abuse: the effects of alcohol and marijuana on neuropsychological performance. *Alcoholism: Clinical and Experimental Research*. 2011 Jan;35(1):39-46
10. Tapert SF, Brown SA. Substance dependence, family of alcohol dependence and neuropsychological functioning in adolescence. *Addiction*. 2000;95(7):1043-1053
11. Medina KL, Hanson K, Schweinsburg AD, Cohen-Zion M, Nagel BJ, Tapert SF. Neuropsychological functioning in adolescent marijuana users: Subtle deficits detectable after 30 days of abstinence. *J Int Neuropsychol Soc*. 2007;13(5):207-220.
12. Mustonen A, Niemelä S, Nordström T, Murray GK, Mäki P, Jääskeläinen E, Miettunen
13. J. Adolescent cannabis use, baseline prodromal symptoms and the risk of psychosis. *The British Journal of Psychiatry*. 2018 Apr;212(4):227-33.
14. Anglin DM, Corcoran CM, Brown AS, Chen H, Lighty Q, Brook JS, Cohen PR. Early cannabis use and schizotypal personality disorder symptoms from adolescence to middle adulthood. *Schizophrenia research*. 2012 May 1;137(1-3):45-9.
15. Volkow ND, Baler RD, Compton WM, Weiss SR. Adverse health effects of marijuana use. *New England Journal of Medicine*. 2014 Jun 5;370(23):2219-27.
16. Chakravarthy B, Shah S, Lotfipour S. Adolescent drug abuse-Awareness & prevention. *Indian Journal of Medical Research*. 2013 Jun 1;137(6):1021-3.