

## Research Article

# Multifactorial Drivers of Adolescent Substance Abuse Across Southern India: Insights from Quantitative and Qualitative Research

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## Abstract

This study examines adolescent substance abuse across five southern Indian states—Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, and Telangana—using a mixed-methods approach with quantitative surveys and qualitative focus groups involving 500 adolescents aged 12–18 years. Results reveal tobacco and alcohol as predominant substances, with initiation commonly occurring between ages 9 and 12. Findings show significant gender differences, educational influences, and psychosocial determinants including peer and family factors. Regional variations underscore the need for tailored prevention and intervention strategies emphasizing school-based programs, community involvement, and adolescent-friendly counseling services.

**Keywords:** Adolescent, Substance Abuse, Tobacco, Alcohol, Southern India, Prevention, Psychosocial Factors.

## 1. Introduction:

Adolescent substance abuse represents an escalating public health concern in India, particularly in the southern states where diverse socio-cultural and economic factors influence youth behaviour. India's adolescent population, exceeding 250 million aged 10–19, is vulnerable to experimenting with psychoactive substances due to rapid biological, psychological, and social changes. Early initiation of substances such as tobacco and alcohol increases the risk of dependency, academic failure, and long-term health complications.

Existing studies point to the critical role of peer influence, family environment, accessibility, and media exposure in shaping adolescent substance use. However, region-specific data that capture the nuances influencing behavior in southern Indian states remain limited. This study aims to bridge this gap by investigating prevalence, determinants, and consequences of substance use among adolescents across Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, and Telangana, employing quantitative and qualitative methods to provide comprehensive insights.

## 2. Methodology:

This study adopts a mixed-methods descriptive design integrating cross-sectional surveys and focus group discussions across 10 districts in the five southern states of India. A purposively selected sample of 500 adolescents aged 12–18 years from grades 6 to 10, including school-going, dropouts, and never-enrolled youth, was surveyed using structured interviews

encompassing demographic data, substance use patterns, psychosocial competence, harm awareness, and usage motivations.

Qualitative data were collected through focus groups involving adolescents, parents, teachers, and community leaders to contextualize quantitative findings and explore community perceptions and intervention needs.

Quantitative data analysis involved descriptive statistics, chi-square tests for associations, independent sample t-tests for group differences, Pearson correlation for relationships among variables, and multiple linear regression to identify predictors of substance overuse. Qualitative data were thematically analyzed to supplement and explain survey results.

**3. Results:**

The study conducted across five southern Indian states reveals critical insights into the prevalence, patterns, determinants, regional variations, and predictors of adolescent substance use, underscoring a complex interplay of individual, social, and environmental factors contributing to this public health concern.

**Table 1: Descriptive Statistics for Key Variables**

Variable	Count	Mean	Std. Dev.	Min	25%	50%	75%
Age	500	15.44	1.71	11	14	15	17
Days Used (Past 30d)	500	1.84	1.1	1	1	1	2
Age at First Use	500	3.16	1.13	1	2	3	4

**Table 2: Gender Distribution**

Gender	Count	Gender
Male	474	Male
Female	26	Female

**Table 3: Frequencies of Substance Use Categories**

Substance	Count
Tobacco	287
Alcohol	134
Others	42
Prescription drugs	15
Cannabis	13
Inhalants	9

**4. Prevalence and Patterns of Substance Use Among Adolescents:**

The findings illustrate a widespread use of tobacco and alcohol among adolescents, with tobacco reported by 57.4% and alcohol by 26.8% of respondents, marking these as the most used substances. Other substances such as cannabis, inhalants, and prescription drugs demonstrated relatively lower but notable prevalence. The early age of initiation, predominantly between 9 and 12 years, signals a critical vulnerability window within early adolescence, emphasizing the urgency for prevention efforts starting at a young age.

Gender disparities were pronounced, with male adolescents constituting 94.8% of substance users. Males not only reported higher prevalence but also earlier initiation and increased frequency and intensity of use compared to females. This aligns with cultural and social norms where male experimentation with substances is often more socially tolerated or overlooked.

Educational attainment emerged as an important factor in vulnerability. Adolescents who were school dropouts or never enrolled exhibited higher risk, particularly in misusing prescription

drugs and engaging in poly-substance use. This underscores education's protective role in maintaining adolescent health and preventing risky behaviors.

### **5. Determinants Influencing Adolescent Substance Use**

The study highlights multiple determinants fuelling substance use among adolescents:

1. **Peer influence:** Peer pressure was a primary motivation for initiation and continuation, reflecting adolescents' social needs and desire for acceptance.
2. **Curiosity and stress relief:** These personal triggers demonstrate the role of psychological and emotional factors driving experimentation and coping.
3. **Family environment:** Exposure to substance use within the family, lack of parental supervision, and family conflicts increased susceptibility, emphasizing the family unit's pivotal role.
4. **Accessibility:** Ready availability of substances, particularly near schools, contributed to ease of use and normalization.
5. Interestingly, harm awareness showed a positive association with substance overuse, suggesting that awareness often occurs through direct experience or intervention after initiation rather than acting as a preventive factor. This points to limitations of knowledge-based interventions when utilized in isolation without skills-building and environmental change

### **6. Regional Disparities**

The findings highlight clear regional disparities in adolescent substance use shaped by unique socio-cultural and economic factors:

- **Andhra Pradesh** displays the highest alcohol consumption prevalence at 50%, coupled with early initiation ages. Elevated prescription drug misuse is particularly notable among school dropouts, underscoring the critical need for targeted interventions addressing out-of-school and vulnerable youth populations.
- **Karnataka** stands out with the highest tobacco use rate at 70% and the earliest age of initiation. This state also faces deeply ingrained habitual use patterns and a high school dropout rate of 25%, reflecting persistent substance dependence alongside significant educational disengagement.
- **Kerala** features younger adolescents on average and the greatest prevalence of inhalant use (7%). Strong school retention rates in Kerala suggest that robust educational engagement functions as a protective factor, even as inhalant misuse emerges as a growing concern.
- **Tamil Nadu** is characterized by predominant tobacco use at 73% and relatively high participation in counseling programs, indicating positive impacts of school-based preventive interventions within the state.
- **Telangana** reports substantial tobacco (60%) and alcohol (33%) use concentrated primarily among school-attending youth. However, the low rate of counseling uptake despite high harm awareness reveals a disconnect between knowledge and actual treatment-seeking behavior.

These state-specific variations underscore the imperative for tailored prevention and intervention strategies that are sensitive to each region's socio-economic conditions and cultural context, rather than relying on broad, one-size-fits-all national approaches.

### **7. Predictors of Substance Overuse**

The multivariate regression analysis revealed several key factors significantly associated with increased substance overuse among adolescents. Gender emerged as a strong predictor, with male adolescents demonstrating higher frequency and intensity of substance use compared to females and those identifying as a third gender. This disparity underscores the influence of

sociocultural norms and peer dynamics that tend to encourage greater risk-taking behaviors among males.

Habitual use was another significant determinant, emphasizing how established routines and patterned consumption contribute to sustained substance dependence. The presence of ingrained habits complicates cessation efforts, highlighting the need for interventions that address behavioral reinforcement mechanisms alongside informational education.

Interestingly, higher harm awareness was paradoxically correlated with greater substance overuse. This counterintuitive finding suggests that awareness alone does not sufficiently deter use and may reflect a pattern where heavy users acquire knowledge through personal experience or targeted intervention post-initiation. Therefore, educational efforts need to be complemented by psychosocial support and skill-based approaches to effectively reduce overuse.

Deficits in impulse control were also identified as a significant predictor, illustrating the critical role of self-regulation in substance use behaviors. Adolescents with lower inhibitory control are more susceptible to engaging in frequent and excessive use, pointing to the importance of incorporating impulse management and coping strategies within prevention and treatment programs.

Finally, the availability of school-based awareness programs demonstrated a protective effect, significantly reducing the extent of substance overuse. This finding validates the role of sustained and structured educational initiatives in mitigating risky behaviors among youth, highlighting schools as pivotal platforms for delivering targeted prevention efforts.

Together, these predictors reinforce the complexity of adolescent substance overuse and the necessity of multifaceted strategies that combine gender-responsive interventions, behavioral habit disruption, enhanced self-regulatory skills, and robust school-based educational programs.

## **8. Discussion**

The study makes a compelling case that adolescent substance abuse in southern India is a multifaceted issue characterized by early initiation, marked gender disparities, and the interplay of social, familial, and individual determinants. The predominance of tobacco and alcohol aligns with their wide availability and cultural acceptance, yet rising use of prescription drugs and inhalants in vulnerable subpopulations signals evolving challenges.

The observed early age of initiation, common across all states, is alarming as it increases risk of long-lasting dependency and adverse developmental outcomes. Therefore, intervention efforts must intensify targeting younger adolescents, educating them on risks before initiation occurs.

Gender differences confirm prior evidence that males are disproportionately affected, necessitating gender-sensitive prevention and treatment models that address specific sociocultural expectations and pressures on boys while also monitoring rising trends among females.

The protective role of education is clear—school attendance correlates with lower substance use, so dropout prevention and re-engagement strategies could be vital levers. Moreover, school-based awareness programs demonstrated measurable benefits, reinforcing schools as critical venues for preventive interventions.

However, the paradoxical finding that greater harm awareness correlates with higher overuse suggests information-only approaches are inadequate. Effective interventions should move beyond knowledge dissemination to include skills training (e.g., refusal skills, coping mechanisms), behavioral support, and environmental strategies controlling access and peer influences.

Counseling and treatment participation remained unacceptably low, especially in states like Telangana, despite reasonable belief in their effectiveness. This highlights structural barriers such as stigma, lack of adolescent-friendly services, and accessibility issues that must be tackled to increase treatment uptake and reduce the silent burden of adolescent addiction.

Regionally tailored responses are imperative given stark variations in substance preferences, initiation patterns, and intervention coverage. For example, addressing tobacco dominance in Karnataka, inhalant misuse in Kerala, and low treatment engagement in Telangana calls for customized strategies informed by local epidemiology and culture

## **9. Conclusion**

This comprehensive study elucidates the complex dynamics of adolescent substance abuse in five southern Indian states, highlighting key patterns and determinants. It demonstrates the importance of multidimensional and region-specific interventions addressing the socio-cultural landscape, educational engagement, peer and family influence, and individual behavioral factors. Future prevention efforts should prioritize early age groups, strengthen school-based educational and psychosocial programs, enhance family and community involvement, and innovate to improve counseling service accessibility and acceptability. Only through integrated, context-sensitive approaches can the tide of adolescent substance misuse be effectively stemmed, paving the way for healthier youth development in India.

## **References:**

1. Ambekar, A., Agarwal, A., Rao, R., Khandelwal, S. K., & Chadda, R. K. (2019). Substance use among adolescents in urban slums of Delhi: A cross-sectional study. *Indian Journal of Psychiatry*, 61(1), 79–82.
2. Benegal, V., & Chand, P. K. (2020). Adolescents and substance use. *Indian Journal of Paediatrics*, 87(8), 580–587.
3. Dhawan, A., Pattanayak, R. D., Chopra, A., Tikoo, V. K., & Kumar, R. (2017). Substance use among children in India: Prevalence, patterns, and recommendations for prevention and treatment. *The National Medical Journal of India*, 30(4).
4. Kevin, J. (2024). Substance abuse among adolescents: A study in Kerala. *International Journal of Research Publication and Reviews*, 5(4), 8492–8494.
5. Ministry of Social Justice & Empowerment, Government of India, & NDDTC, AIIMS. (2019). Magnitude of substance use in India.
6. Sushmita Bhagavati, D. S. Natekar, & U. N. Dhandargi. (2023). Prevalence, pattern and determinants of substance abuse among adolescents in Bagalkot, Karnataka, India. *National Journal of Community Medicine*, 14(07), 412–417.
7. World Health Organization. (2021). Atlas on substance use: Resources for prevention and treatment. Geneva: WHO.

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