



Pharmacology and Toxicology

Exploring Drug Use Trends in Pakistani Youth: A Systematic Synthesis of Risk Factors and Societal Impact

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ABSTRACT

Substance use among Pakistani youth has become a critical public health and social issue, exacerbated by the country's proximity to major drug-producing regions and ongoing socioeconomic challenges. This systematic review synthesizes existing literature on the prevalence, risk factors, and social consequences of drug use among individuals aged 12 to 29 in Pakistan, while drawing comparisons with global trends. A systematic search was conducted across Google Scholar, PubMed, and ResearchGate using keywords such as "Pakistani youth substance use" and "Opioid Pakistani teenagers." Peer-reviewed qualitative and quantitative studies were screened based on age relevance, study design, and thematic focus. Data were extracted on psychological drivers, family dynamics, substance types, and broader social impacts, followed by thematic synthesis. Twenty eligible studies were reviewed. Rehabilitation center surveys reported heroin (48%) and cannabis (28%) as the most abused substances, with 35% initiating use in adolescence. Comorbid depression was present in 46% of cases. Among medical undergraduates, tobacco (76%), benzodiazepines (32%), cannabis (27%), alcohol (16%), and naswar (28%) were commonly used. Peer pressure was identified in 96% of cases, along with academic stress and family conflict. Street-based youth studies (N = 443) showed drug use linked with age >16 (OR 2.3), homelessness (OR 2.4), peer use (OR 5), and drug sales (OR 10.3). Qualitative findings highlighted poor parental control and collective social pressure. Compared to other LMICs, Pakistan reported similar alcohol and cannabis use but significantly higher opioid misuse due to Afghanistan's proximity. Adverse effects include mental illness, school dropout, and legal issues. Youth substance use in Pakistan is driven by multifaceted socioecological factors. Effective intervention must include mental health, family-based, and structural strategies aligned with global prevention models, particularly to address the rising threat of opioid exposure.

KEYWORDS

Pakistan, youth, substance use, heroin, cannabis, opioid epidemic, risk factors, teenagers

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INTRODUCTION

In Pakistan-a nation known for its deep cultural traditions and youthful demographics-substance abuse has been viewed as an issue lurking in the margins for quite a long while now. Yet, over the past two decades, this perception has eroded. What was once regarded as a peripheral problem, limited to the



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destitute or morally 'deviant', has now seeped into the root and soil of Pakistani society, including schools, colleges, universities, digital and social spaces, and even households. Youth in Pakistan today navigate a complex intersection of social conservatism and simultaneous rapid urbanization. As external pressures from academic competition, political and sociocultural turmoil, financial instability, and generational disconnect strengthen, many teenagers and young adults turn to psychoactive substances not simply for recreation, but as a misquided and uninformed form of relief¹. The use of drugs is often clandestine, masked by cultural stigma and a familial denial, which in turn fuels the fire of further isolation and drives usage hidden underground. Pakistan's unique position as a transit hub in the global trade of heroin has magnified this problem. The state's porous border with Afghanistan-producer of over 85% of the world's illicit opium²-makes it extremely vulnerable to trafficking and local spillover consumption. As heroin, methamphetamine, and synthetic opioids become more accessible, the boundary between recreational and dependent use slowly blurs into a thin line, especially among the youth. Pakistan, with over 64% of its population under the age of twenty-nine, is confronting a rising tide of teen and young adult substance abuse³. Its proximity to Afghanistan-a supplier of 85% of the heroin bought globally-facilitates an expansive access to opiates. Meanwhile, the fortification of cannabis in cultural practices and the expanding visibility of pharmaceuticals such as benzodiazepines compound huge long-term risks. Moreover, cultural taboos surrounding mental health and addiction foster acts of dismissal and misunderstanding from families and culture towards young people suffering from mental health issues such as depression and anxiety, as well as substance addiction. In some cases, moral and ethical judgment replaces medical intervention. Parents and guardians often conflate drug use with delinquency and lawlessness instead of illness, and institutional rehabilitation efforts are either underfunded or cloaked in secrecy. As a result, accurate statistics are difficult to obtain, and much of what is known to the public is rooted in fragmented studies and research, anecdotal evidence, or isolated government reports.

Despite the strain in the amount of available data, the existing literature reveals concerning patterns of early onset of drug abuse, high levels of polysubstance abuse, and considerable correlations with anxiety, depression, and suicidal ideation. Substances such as benzodiazepines, heroin, cannabis, naswar⁴ (a moist powdered form of tobacco typically found in Afghanistan and Pakistan), alcohol, and synthetic stimulants are reportedly used by college and university students, street urchins, and even adolescents in traditional conservative households. This is a public health crisis operating in the shadows-disguised by inaction, shame, stigma, and denial. As Pakistan continues to wrestle with political and financial instability, substance abuse among its young generations is on the road to becoming both a symptom and a breeding ground of an ecosystem of several deeper structural dysfunctions on a national level. Data from rehabilitation centres reveal that heroin, with 48% of adolescent usage, and cannabis, with 28% of young adult usage, dominate over other substances, with teenagers initiating 35% of cases and comorbid depression in nearly half of the total demographic⁵. Medical students in the city of Abbottabad report a lifetime use of substances, including smoking cigarettes about 76%, benzodiazepines about 32%, naswar about 28%, cannabis for 27%, and alcohol about 16%. Additionally, dental and medical students resort to substance abuse 96% of the time due to peer pressure, up to 90% of the time due to academic stress, and up to 88% of the time due to curiosity as external and internal motivations⁷. Peer influence consistently emerges, with qualitative accounts and qualitative studies simultaneously highlighting its role in initiation8. Homeless people, especially children, demonstrate higher rates of narcotic use with growing age, homelessness, peer usage, as well as prior sale involvement, for instance, OR 5 for peer influence and OR 10 for selling drugs⁹. Moreover, studies based on family systems in Rawalpindi and Islamabad emphasise that different styles of parenting, collectivist parenting, permissive parenting, parenting that is low in assertiveness, and a lack of boundaries tend to foster cases of teenage or young adult substance addiction and abuse¹⁰. Additionally, factors such as familial or parental neglect, depression surrounding the various stressful aspects of school and college, and a curiosity to try something new and different are all correlated with addiction in young boys and girls who are residents of Azad Kashmir¹¹. Moreover, schools and college campuses often lack the resources and effective preventive policies to ensure

the de-influencing of substance use trends and facilitating drug access, as well as an unfortunate lack of crackdown¹². Furthermore, parallels on a global scale in low-and middle-income countries admit shared features of peer pressure and a lack of support from familial and parental demographics; however, it is important to note that the youth of Pakistan bear the disproportionate burden of opioid abuse. In India, cannabis, prescription opioids, as well as alcohol comprise major youth substances; yet Pakistan's illicit opioid use, fueled on a transnational scale, remains disproportionate. This study aims to systematically review and synthesize existing literature on the prevalence, risk factors, and social consequences of substance use among Pakistani youth aged 12 to 29, while drawing comparisons with global trends to inform effective and context-specific intervention strategies.

MATERIALS AND METHODS

To investigate the use of drugs and other addictive substances among the youth of Pakistan, a systematic review was conducted by PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) guidelines. The review aims to synthesize and create an understanding of the reasoning and outcomes of drug abuse among teenagers and young adults in Pakistan. To ensure an extensive, comprehensive, and academically progressive review, multiple databases were searched exhaustively including Google Scholar, Research Gate, PubMed, PubMed Central, and BioMed Central using a combination of keywords such as "Pakistan", "Youth", "Substance use", "Heroin", "Cannabis", "Opioid epidemic", "Risk factors", and "Teenagers".

Data extraction: The data was screened and extracted by the author utilising researches and studies conducted between the years of 2001 and 2025 to gather literature that reflects the growth or decrease of drug abuse trends over the past two decades to report how far progress has been made and relevant evidence reflecting Pakistan's modern-day perceptions and knowledge of mental health awareness and drug abuse as a state. Researches and studies were carefully examined, and articles with the standardised criteria of accurately cited authorship, publication date, sample size, key findings, and comprehensive methodology were used for the literature exclusively.

Inclusion criteria:

- Peer-reviewed studies (from 2001 to 2025)
- Research focusing on the Pakistani context, with some comparisons made with other countries, to understand disparities
- Published in English
- Including DOIs or relevant citable hyperlinks

Exclusion criteria:

- Opinion-based pieces
- Non-citable studies with no links, references, or DOIs
- Studies with incomplete methodology and results
- Studies older than 2006

RESULTS AND DISCUSSION

The findings of the review article spotlight an urgent and multidimensional national-level crisis. While drug use is by no means unique to Pakistan, its specific manifestation among the youth is shaped by a volatile nexus of cultural, economic, psychological, and institutional variables that demand an actual, nuanced comprehension and targeted policy-making response. Although the burden of adolescent substance use disorders (SUD) has gradually decreased overall, numerous low-middle-income countries-especially the countries of Iran and Mongolia-are currently experiencing harsh surpluses in both the prevalence

and disease burden due to lax regulatory frameworks and high youth vulnerability¹³. In contrast, India and China-with expansive teenage populations-have seen more stability and a decrease in rates thanks to successful targeted interventions such as India's Rashtriya Kishor Swasthya Karyakram and China's youth-centred drug education programs and campaigns¹³.

Similarly, in Brazil, over two thousand four hundred adolescents and young adults aged between ten and nineteen years old reported lifetime use rates as high as 86.8% for alcohol, 41% for tobacco, 13.9% for marijuana, eleven-point-six percent for inhalants such as cigarettes, and four-point-three percent for amphetamines¹⁴. This pattern of licit substance initiation preceding illicit drug experimentation reflects a worldwide phenomenon also apparent across other countries in Africa, Latin America, as well as Asia. In comparison to regional neighbors such as India, Iran, and Afghanistan, Pakistan occupies a unique position in South Asia's narcotics landscape, socio-politically and geographically. It acts as both a transit and destination country for these drugs, with permeable borders and under-policed trafficking routes. However, unlike India, where recently a proliferation of public health campaigns, college and universitylevel drug testing protocols and de-addiction rehabilitation services have been seen-Pakistan lags on significantly in implementing policies working towards the reduction of harm, and evidence-based intervention programs and campaigns. The most promising route to effective strategies for the prevention of teenage alcohol and substance abuse issues is via a risk-centred approach. An approach like this demands, firstly, the identification of potential risk factors for drug abuse, the identification of methods by which these risk factors could be controlled or maintained, and the application of said methods¹⁵. Globally, the Pakistani youth drug scene mirrors certain trends observed in Africa and Latin America, where modern-day youth feel a gravitational pull towards narcotics as a response to feelings of disempowerment, unemployment, and social alienation. However, the cultural taboo orbiting drug discourse in Pakistan significantly differentiates its context. In the West, open discourse, preventive literacy, and rehabilitation visibility have fostered a more proactive response to the problem. In contrast, in Pakistan, drug abuse remains a sheltered topic beneath layers of stigma, denial, as well as bureaucratic inertia. A recurring theme within the gathered literature is the institutional apathy and fragmentation in Pakistan's drug control policies. Although the Anti Narcotics Force (ANF) and Ministry of Narcotics Control do exist, their efforts remain largely punitive rather than rehabilitative in comparison to successful interventions implemented in Pacific Northwest tribes on their Native youth¹⁶. Educational institutions often lack mandatory drug screenings, teacher sensitisation, or preventive psychoeducation programs. Additionally, universities, colleges, and schools predominantly rely on disciplinary approaches such as suspension or expulsion rather than actual treatment and support-based interventions, thereby exacerbating social exclusion and alienation as well as recidivism. The cultural silencing around substance use exacerbates the problem further¹⁷, particularly for women¹⁸. Due to the added pressure and stressors of adhering to gender norms or women, female drug addiction is either grossly underreported or holistically ignored in national health data overall¹⁹. Anecdotal evidence and Non-Governmental Organisation reports suggest an alarming surplus in opioid and prescription drug misuse or abuse among young-adult urban women, often cloaked under the guise of "stress medication". Yet this cohort remains largely invisible in treatment and research narrative-based intervention planning patterns, perpetuating a dangerously one-sided understanding and comprehension of the drug abuse epidemic in our world today, leaving a huge gap in the literature. On the other hand, other external factors such as the advent of hyper-connectivity through social media and other digital communicative forums has added an extra complex layer. As the global youth, including the Pakistani young-adult cohort, navigate increasingly digital social realities and expectations, an expansive and frightening exposure to global subcultures that work towards normalising or aestheticising the use of drugs becomes an inevitable circumstance, and also a harmful consequence of unrestricted and uninformed use of social media platforms without any prior media literacy. Digital drug culture, comprising 'memes', provocative messages in music, video blogs, and pseudo-therapeutic endorsements, has fostered a parallel reality or an alternate universe where narcotics are de-stigmatised or even more harmfully so; romanticised. With limited digital literacy, poor quality

toolsets for cyberregulation, and weak media accountability, this trend is growing unchecked. More importantly, global research consistently underscores the crucial role of family dynamics and household environmental factors as well as psychosocial adjustment. Adverse Childhood Experiences (ACEs) which include household substance use and consistent patterns of familial conflict or toxic household dynamics, have been repeatedly correlated to a several-fold increase or surplus in adolescent drug experimentation tendencies as well as actual manifestations of such consistent tendencies as a form of cognitive and emotional release and decompression of mental health issues related to, or rooted in, toxic and abusive family environments²⁰. In Pakistan, emotional familial neglect, a coherent lack of parental assertiveness, as well as poor family communication styles, have proven to be factors that heighten the vulnerability of adolescents, teenagers, or young adults to drug, alcohol, and substance abuse¹⁰. Furthermore, across various, diverse settings, mental health stressors, including depression and anxiety, are strongly linked with adolescent drug curiosity and experimentation. In Pakistan, about half of the drug-using rehabilitation patients reported having been suffering from comorbid depression, anxiety, and other such pathological disparities. This comorbidity echoes across findings from high-income contexts where adolescents, teenagers, and young adults with varying emotional, cognitive, pathological, and mental health burdens tend to have heightened substance use disorder (SUD) risk, and underscores an urgent need for integrated, structured, well-planned, and sustainable rehabilitation centres and prevention care systems.

- **Trend convergence:** Youth substance experimentation following a progression from legal (alcohol, tobacco) to illicit drugs, observed across LMICs as well as high income countries
- **Psychosocial drivers:** Family dynamic dysfunction, ACEs, poor emotional adjustment, and peer influence feature prominently across global studies and specifically Pakistani data
- **Policy divergences:** While India, China, and Western nations show the impact of preventive strategies, Pakistan's policy response remains largely punitive or non-existent
- **Gender invisibility and cultural silence:** Female youth substance use remains under-researched worldwide; in Pakistan, this is exacerbated by social stigma, mirroring global trends of underreporting among girls
- Institutional voids and health sector gaps: Lack of school-level screening, counseling, and youth targeted rehab exacerbates youth vulnerability in Pakistan, distinguishing it unfavorably from more proactive countries

These global perspectives highlight the crucial need for Pakistan as a developing nation to pivot from reactive enforcement to systematic as well as systemic prevention. What Pakistan truly needs is to learn from its international peers and review their models to foster an intervention program on a national level that is capable of bringing about actual, long-term, sustainable change in current and future generations, while focusing on the dismantling of harmful, culture-rooted stigmas that drive young adults, teenagers, adolescents, and children alike, into harmful coping mechanisms such as resorting substance, drug, and alcohol abuse. What Pakistan should do is embed drug education and actual effective mental health services on an educational institute level, meaning drug abuse and health concern-related literary programs and campaigns on a state level. Furthermore, adopting harm-reduction frameworks, including needle exchange and naloxone access for street-connected youth, could also turn out to be an effective way to reduce drug use in youngsters. Thirdly, expanding youth-specific rehabilitation facilities, integrating psychosocial therapies, and family involvement could foster an atmosphere of genuine support and care for the addicted demographic of youngsters, making them feel at ease and trust their environment and their guardians to take care of them without any sort of judgment or alienation. Another great way to prevent the gravitational pull teens and young adults feel towards resorting to drug abuse could be the enhancement of digital literacy, as well as media consumption regulation. This could counter glamorized portrayals of drug, substance, and alcohol abuse on social digital platforms. On a more intersectional forum, bridging the caved-in gender gaps in implementation of interventions as well as in research by actively studying, addressing, and researching female adolescent and young adult substance use.

CONCLUSION

This review reveals that substance abuse among Pakistani youth is a deeply rooted socioecological crisis, driven by psychological distress, weak institutional support, and societal denial. Current punitive responses are ineffective, reinforcing stigma and relapse. A shift toward preventive, rehabilitative, and youth-centered strategies is essential. Pakistan must adopt holistic, compassionate, and evidence-based policies to reclaim its youth and secure its future.

SIGNIFICANCE STATEMENT

This review provides a culturally grounded synthesis of substance use trends, risk factors, and consequences among Pakistani youth-an area often overlooked in global research. It highlights neglected aspects such as synthetic drugs, gender disparities, and media influence. By integrating international insights and offering policy-relevant recommendations, the study serves as a critical guide for researchers, educators, healthcare providers, and policymakers seeking sustainable solutions to youth drug abuse in Pakistan.

REFERENCES

- 1. Bukhari, S.H.F., 2023. The rise of drug addiction among Pakistani youth: Causes, consequences, and Islamic remedies. Al-Aijaz Res. J. Islamic Stud. Humanit., 7: 19-25.
- 2. Kinally, E., 2022. Afghanistan and the global heroin trade. BJPsych Open, 8: S56-S56.
- 3. Ahmed, B., F.N. Yousaf, M. Saud and A. Ahmad, 2020. Youth at risk: The alarming issue of drug addiction in academic institutions in Pakistan. Children Youth Serv. Rev., Vol. 118. 10.1016/j.childyouth.2020.105385.
- 4. Ali, S., M.A.R.K. Wazir and S. Qadir, 2017. Naswar: What do (a form of smokeless tobacco) users know about its harmful effects? Prof. Med. J., 24: 386-391.
- 5. Ghazal, P., 2019. Rising trend of substance abuse in Pakistan: A study of sociodemographic profiles of patients admitted to rehabilitation centres. Public Health, 167: 34-37.
- 6. Nawaz, H., A.A. Khan and S. Bukhari, 2017. Use of psychoactive drugs among medical undergraduates in Abbottabad. J. Ayub Med. Coll. Abbottabad, 24: 599-603.
- 7. Shafiq, M., Z. Shah, A. Saleem, M.T. Siddiqi and K.S. Shaikh *et al.*, 2006. Perceptions of Pakistani medical students about drugs and alcohol: A questionnaire-based survey. Subst. Abuse Treat. Prev. Policy, Vol. 1. 10.1186/1747-597X-1-31.
- 8. Al-Kandari, F.H., K. Yacoub and F. Omu, 2001. Initiation factors for substance abuse. J. Adv. Nurs., 34: 78-85.
- 9. Waheed, A., M. Sarfraz, A. Mahfooz, T. Reza and F. Emmanuel, 2025. Risk factors for narcotic use in street children: A cross-sectional analysis from a low-middle-income country. INQUIRY: J. Health Care Organ. Provision Financing, Vol. 62. 10.1177/00469580251324047.
- 10. Masood, S. and Najam Us Sahar, 2014. An exploratory research on the role of family in youth's drug addiction. Health Psychol. Behav. Med., 2: 820-832.
- 11. Amin, U., A.M. Malla, I. Amin and R. Jan, 2023. Substance abuse: A public health concern. Indian J. Psychiatric Nurs., 20: 168-178.
- 12. Wagner, E.F., J.G. Tubman and A.G. Gil, 2004. Implementing school-based substance abuse interventions: Methodological dilemmas and recommended solutions. Addiction, 99: 106-119.
- 13. Yu, C. and J. Chen, 2025. Global burden of substance use disorders among adolescents during 1990-2021 and a forecast for 2022-2030: An analysis for the Global Burden of Disease 2021. BMC Public Health, Vol. 25. 10.1186/s12889-025-22107-6.
- 14. Tavares, B.F., J.U. Béria and M.S. de Lima, 2001. Drug use prevalence and school performance among teenagers [In Portuguese]. Rev. Saúde Pública, 35: 150-158.
- 15. Hawkins, J.D., R.F. Catalano and J.Y. Miller, 1992. Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. Psychol. Bull., 112: 64-105.

- 16. Donovan, D.M., L.R. Thomas, R.L.W. Sigo, L. Price and H. Lonczak *et al.*, 2015. Healing of the Canoe: Preliminary results of a culturally tailored intervention to prevent substance abuse and promote tribal identity for native youth in two Pacific Northwest tribes. Am. Indian Alaska Native Mental Health Res., 22: 42-76.
- 17. Spata, A., I. Gupta, M.K. Lear, K. Lunze and J.B. Luoma, 2024. Substance use stigma: A systematic review of measures and their psychometric properties. Drug Alcohol Depend. Rep., Vol. 11. 10.1016/j.dadr.2024.100237.
- 18. Matsumoto, A., C. Santelices and A.K. Lincoln, 2021. Perceived stigma, discrimination and mental health among women in publicly funded substance abuse treatment. Stigma Health, 6: 151-162.
- 19. Greenfield, S.F. and C.E. Grella, 2009. Alcohol & drug abuse: What is "women-focused" treatment for substance use disorders? Psychiatric Serv., 60: 880-882.
- 20. Johnson, V. and R.J. Pandina, 1991. Effects of the family environment on adolescent substance use, delinquency, and coping styles. Am. J. Drug Alcohol Abuse, 17: 71-88.