The COVID-19 pandemic has affected lives globally in a profound manner. At the time of this writing, there are 83.6 million confirmed COVID-19 cases worldwide and 10.3 million in India. India reported its first COVID-19 case on January 30, 2020, and soon recorded exponential growth in the number of positive cases. In response to this global public health crisis, the Government of India, like many other countries, initiated a nation-wide lockdown on March 24, 2020, shutting down all nonessential services, restricting human movement, and advising self-isolation and social distancing practices to the citizens. The healthcare sector continues to function under the rubric of essential services, however, with some practical restrictions. As the world battles the COVID-19 pandemic, isolation, restriction of movement, and economic shutdown have brought drastic changes to our psychosocial environment. These changes impose significant challenges for child and adolescent mental health. Decreased opportunities for stress regulation, anxiety, existing mental health conditions, domestic violence, child maltreatment, and traumatic experiences have been discussed, and ensuring continuity of care with helpline services have been recommended.1

However, one population that has received little attention is adolescents who use substances. Substance use among adolescents is a cause of concern worldwide.2,3,4 According to the national survey, Magnitude of Substance Use in India, 2019, the prevalence of current use among adolescents is 1.8% for opioids, 1.3% for alcohol, 1.17% for volatile solvents, and 0.9% for cannabis.2 Substance use in this population comes with its unique complications like poorer prognosis, adverse impacts on physical, psychological, and socio-occupational functioning, and other risky behaviors, warranting a need for special attention continuity of care with helpline services have been recommended.1

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Research on substance use disorders in the context of the COVID-19 pandemic is limited to anticipating changes in substance use patterns and treatment challenges. While most of the existing literature is focused on adults, the needs of special populations like adolescents find little attention. The only study focussing on substance use among adolescents during the COVID-19 pandemic was conducted among 1054 Canadian adolescents, reporting an increase in the frequency of alcohol and cannabis use, with a significant number of adolescents ignoring social distancing and other relevant precautions while using substances with peers. We aim to bring out the specific challenges that adolescents who use substances may face during the current global situation.

Impact of Substance Use on the Risk of COVID-19 Infection Among Adolescents

While children and adolescents seem to have milder symptoms of the disease and are at a lower risk of mortality from COVID-19 compared to middle-aged and older adults, the same cannot be said for adolescents who use substances. Although there is no research to date that assesses this risk in this population, studies comparing respiratory symptoms and lung functions among adolescents who use substances (cannabis, volatile solvents, and other substances by inhalational route) with age-matched healthy controls have reported significantly higher respiratory symptoms (cough, expectoration, dyspnoea, emphysema, and bronchitis) and decease in spirometric parameters. This may put them at a higher risk of getting infected while trying to procure substances per se or in the process of arranging money for substance use, which may involve risky behavior like sexual activity with strangers. The usual symptoms of COVID-19 infection, namely cough, expectoration, diarrhea, loss of appetite, and generalized weakness, may mimic withdrawal symptoms, making the two difficult to differentiate and manage accordingly.

Substance use is often associated with socio-economic adversities like homelessness, overcrowded living conditions, and poverty, which impact adolescents just like adults. There may be a lack of awareness and sensitization about personal protective measures among adolescents. Sources of information about COVID-19 and helpline numbers are available mostly through online resources or social media platforms, which may be difficult to access for such adolescents, also resulting in lack of access to telemedicine services, nutritious food, and protective equipment like face masks and alcohol-based hand sanitizers. This situation, compounded with limited facility for self-isolation and social distancing, also makes the adolescents who use substances a population at significant risk of coronavirus infection.

Impact of COVID-19 Pandemic on Substance Use Practices in Adolescents

The COVID-19 pandemic has presented the world with many challenges, some of which can be anticipated to profoundly impact substance use practices, particularly in adolescents. The pandemic has given the world a major economic setback, adding tremendous financial pressure on many families in the form of loss of employment, decline in income, and debts that may be newly incurred or present already. Studies have shown that such stressful conditions in the family may adversely influence parent–child relations and increase the risk of mental health conditions and substance use in adolescents. Also, the closure of schools and colleges and decreased contact with peers have gravely disrupted their daily routine, adding developmental and emotional stress to educational setbacks. The families of adolescents who use substances tend to have greater dysfunction, higher incidences of domestic violence, child abuse, and interparental conflict, and poorer parent–child relationship.

Having to spend more time in such an environment is another reason adolescents feel stressed, display aggressive behavior, or develop psychological disturbances, and seek substances to find relief. This situation is further complicated by limited ways of stress regulation, like outdoor activities, sports, and other healthy peer interactions. These factors may increase substance use rates in adolescents, along with mental health issues. Moreover, COVID-19 infection may be associated with compromised lung function and respiratory depression. In a coronavirus-infected adolescent, respiratory compromise may be aggravated by the use of psychoactive substances like opioids, which in high doses, can cause respiratory depression, leading to an increased risk of death due to hypoxia.

However, this situation has several more nuances, making the impact of the COVID-19 pandemic on substance use among adolescents complex to understand. While substance-seeking behavior in adolescents can be expected to increase, due to restriction on human movement imposed by the lockdown, the availability of licit and illicit substances has significantly reduced. This has resulted in a steep rise in the demand and prices of these substances. This situation can have either of the four effects—adolescents, in an attempt to obtain substances, or in an attempt to cut costs, may do so by unauthorized...
means, exposing themselves to spurious or low-quality substances, causing adverse effects on health, as witnessed in the unfortunate deaths due to methanol consumption in Iran, increased consumption of locally brewed alcohol and poisoning in Bihar, and cases of drinking alcohol-containing hand sanitizer during initial phases of the strict alcohol ban in India.23,24

Adolescents may switch from licit to illicit substances whose supply is operated through clandestine channels and may endanger themselves with physical and psychological harm, also running the risk of getting into conflict with the law.16,25,26 The third alternative is that adolescents may have to endure a forced abstinence, which may involve having to deal with intense cravings and withdrawal symptoms, some of which may pose complications, like delirium, seizures, and other life-threatening conditions, with some substances requiring emergency medical attention.16,25 In another possibility, difficulties in access to substances, reduced engagement with peers who use substances, and spending time with family may motivate adolescents to consider abstinence and seek treatment.

Impact of COVID-19 Pandemic on the Management of Adolescents Who Use Substances

People who use drugs are usually a marginalized and stigmatized population who have poor access to healthcare services. Moreover, with a treatment gap of more than 90%, help-seeking in adolescents is known to be poorer as compared to adults who use substances.28 The current situation also brings in several challenges in the management of adolescents who wish to seek treatment for substance use, due to the closure of treatment centers and child helpline services because of lockdown.16 This may create difficulties for the two distinct treatment-seeking populations—those adolescents who already are in treatment and those who are contemplating seeking treatment for substance use.

Adolescents who already were in treatment before the lockdown was initiated may find it difficult to reach the treatment center or to spend enough time or feel as comfortable as earlier with their therapist or doctor. The current guidelines advise as little close contact with the patients as feasible and increasing the duration between two follow-up visits.28 While this may provide a sense of reduced risk to the treatment provider, it may not work for adolescent patients who require intensive psychosocial support and the involvement of the family and the therapist in addition to medical management.16,24 This may lead to a sense of dissatisfaction with treatment or therapy and contribute to relapse.

Adolescents who were using substances prior to the COVID-19 pandemic and found the motivation to seek treatment may find it difficult to access or difficult to engage in the treatment process, due to similar reasons. Limitations on the functioning of outreach services and non-governmental organizations dedicated to child welfare and child care institutions have resulted in added difficulties for adolescents who use substances.

No guidelines on treating substance use disorders during the COVID-19 pandemic consider special populations, including adolescents. These guidelines recommend flexible take-home dosing of buprenorphine and methadone,26,27 which is risky if prescribed to adolescents (without attendants) in that manner. They may use these in excessive doses or may mix multiple psychoactive substances as per availability, putting them at a greater risk of adverse health events and mortality.

Protective Effects of COVID-19 Pandemic on Adolescents Who Use Substances

The silver lining in this dark cloud comes in the form of disruption in the supply chain of both licit and illicit drugs. The consequent increase in price and difficulty in access may discourage adolescents from initiating substance use or dissuade those who use substances in a nonproblematic manner from increasing the amount or frequency of use. This time may also provide adolescents with an opportunity to break free of negative peer influence, explore their personal growth and planning for their future, and bond with their family members. This turn of events may encourage attempts to reduce or stop substance use and promote treatment-seeking in adolescents.

Recommendations for Treatment Services

Due to the changing scenario, there is a dire need for addiction treatment services to understand the challenges adolescents who use substances phase and modify their treatment approach. Health authorities may benefit from the development and application of specific strategies for adolescents who use substances, aimed at early identification, sensitization, and provision of protective materials like face masks and alcohol-based sanitizers, in order to interrupt transmission, providing appropriate care, attending to medical and psychological issues, and minimizing negative social impact due to COVID-19.29 Meanwhile, provision of treatment for substance use needs to be prioritized, considering the special needs of adolescents who use substances, in terms of medical management, psychosocial support, and attempts to reduce the challenges they face as a vulnerable but hard-to-reach population. In this period, internet-based or telephone-based psychological intervention is recommended.

Enlisting family members’ help in supporting adolescents through this difficult period can be achieved by sensitizing caregivers of the challenges faced by adolescents during this time. Flexible timings for consultation via internet-based or telephonic means may provide adolescents and their families with relief in case of a crisis. Both caregiver and treatment provider should make efforts to appreciate quit attempts, in order to assist the adolescent in maintaining motivation to abstain from substances and remain in treatment. Clinicians who come in contact with adolescents in their daily practice, like primary healthcare physicians, general physicians, and paediatricians, are also urged to keep a keen eye out for the development of psychological disturbances in the adolescents, which may contribute to relapse to substance use or may cause...
dysfunction severe enough to warrant specialized treatment. Providing formal training to clinicians may prove beneficial in early identification and initiation of timely care and referral of adolescents in need. These recommendations have been summarized in Table 1.

In conclusion, adolescents who use substances are a disadvantaged, difficult-to-reach population at risk of several negative consequences given the personal, psychological, and socio-economic challenges presented by the COVID-19 pandemic. There is an urgent need for systematic studies and understanding these challenges and an equally urgent need for preventive and treatment strategies specialized for this population, keeping in mind the altering needs of adolescents who use substances in this changing scenario.

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References
1. Fegert JM, Vitiello B, Plener PL, and Clemens V. Challenges and burden of the coronavirus 2019 (COVID-19) pandemic for child and adolescent mental health: A narrative review to highlight clinical and research needs in the acute phase and the long return to normalcy. Child Adolesc Psychiatry Ment Health [Internet] 2020 Dec [cited 2020 Jun 26]; 14(1): 20.
2. Ambekar A, Agrawal A, Rao R, Mishra AK, Khandelwal S, and Chadda RK. Magnitude of substance use in India. [Internet]. New Delhi: Ministry of Social Justice and Empowerment, Government of India, 2019 [cited 2020 Jul 6]. http://socialjustice.nic.in/writereaddata/UploadFile/Magnitude_Substance_Use_India_REPORT.pdf. Accessed January 29, 2021.
3. Dhawan A and Mandal P. Preventive strategies for substance use. Indian J Soc Psychiatry [Internet] 2017 [cited 2018 Nov 16]; 33(3): 108. http://www.indjsp.org/text.asp?2017/33/2/108/209191. Accessed January 29, 2021.
4. Dhawan A, Pattanayak R, Chopra A, Tikoo V, and Kumar R. Pattern and profile of children using substances in India: Insights and recommendations. Natl Med J India [Internet] 2017 [cited 2018 Dec 7]; 30(4): 224. http://www.nmij.in/text.asp?2017/30/4/224/218679. Accessed January 29, 2021.
5. Dumas TM, Ellis W, and Litt DM. What does adolescent substance use look like during the COVID-19 pandemic? Examining changes in frequency, social contexts, and pandemic-related predictors. J Adolesc Health [Internet] 2020 Sep [cited 2020 Nov 29]; 67(4): 354–361. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC716647/. Accessed January 29, 2021.
6. Kar SK, Arafat SMY, Sharma P, Dixit A, Marthenois M, and Kabir R. COVID-19 pandemic and addiction: Current problems and future concerns. Asian J Psychiatry [Internet] 2020 Jun [cited 2020 Jun 20]; 51: 102064. https://linkinghub.elsevier.com/retrieve/pii/S1876212320310175. Accessed January 29, 2021.
7. Kar SK, Verma N, and Saxena SK. Coronavirus infection among children and adolescents. Coronavirus Dis 2019 COVID-19 [Internet] 2020 Apr 30 [cited 2020 Jun 29]; 71–79. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7189390/. Accessed January 29, 2021.
8. Mustafaoglu R, Mutlu EK, Demir R, et al. Effect of cannabis smoking on lung function and respiratory symptoms in adolescents. Eur Respir J [Internet] 2017 Sep 1 [cited 2020 Jun 29]; 50(Suppl 61). https://erj.ersjournals.com/content/50/suppl_61/PA2707. Accessed January 29, 2021.
9. National Institute on Drug Abuse. Respiratory effects [Internet]. 2020 [cited 2020 Jun 29]. https://www.drugabuse.gov/drg-topics/health-consequences-drug-misuse/respiratory-effects. Accessed January 29, 2021.
10. Bükker HS, Demir E, Yüncü Z, Gülen F, Midyat L, and Tanac R. Effects of volatile substance abuse on the respiratory system in adolescents. Multidiscip Respir Med [Internet] 2011 Jun 30 [cited 2020 Jun 29]; 6(3): 161. https://doi.org/10.1186/2049-6958-6-161
11. Centers for Disease Control and Prevention. HIV and youth [Internet]. Centers for Disease Control and Prevention, 2020 [cited 2020 Jun 29]. https://www.cdc.gov/hiv/group/age/youth/index.html. Accessed January 29, 2021.
12. Kjelsberg E. Exploring the link between conduct disorder in adolescence and personality disorders in adulthood. Psychiatr Times 2006 Jan 1; 23: 22–24.
13. Kulak JA and Griswold KS. Adolescent substance use and misuse: Recognition and management. Am Fam Physician 2019; 99(11): 8.
14. Esposito-Smythers C, and Goldston D. Challenges and opportunities in the treatment of adolescents with substance use disorder and suicidal behavior. Subst Abus 2008; 29(2): 5–17.
15. EMCDDA. EMCDDA update on the implications of COVID-19 for people who use drugs (PWUD) and drug service providers. [Internet]. Lisbon: EMCDDA, 2020 [cited 2020 Jul 1]. https://www.emcdda.europa.eu/publications/topic-overviews/catalogue/covid-19-and-people-who-use-drugs_en
16. Arya S and Gupta R. COVID-19 outbreak: Challenges for addiction services in India. Asian J Psychiatry 2020 Apr 1; 51: 102086.
17. Volkin S. The impact of the COVID-19 pandemic on adolescents. COVID-19 Information and Resources for JHU. Baltimore, MD: Johns Hopkins University, 2020 May 11, p. 8.
18. Bahr SJ, Hoffmann JP, and Yang X. Parental and peer influences on the risk of adolescent drug use. J Prim Prev 2005 Nov; 26(6): 529–551.
19. Johnson V and Pandina RJ. Effects of the family environment on adolescent substance use, delinquency,
20. Atilola O, Stevanovic D, Balhara YPS, et al. Role of personal and family factors in alcohol and substance use among adolescents: An international study with focus on developing countries—alcohol and substance use among adolescents. J Psychiatr Ment Health Nurs [Internet] 2014 Sep [cited 2018 Nov 16]; 21(7): 609–617. http://doi.wiley.com/10.1111/jpm.12133. Accessed January 29, 2021.

21. Allen JP, Chango J, Szwedo D, Schad M, and Marston E. Predictors of susceptibility to peer influence regarding substance use in adolescence: Susceptibility to peer influence. Child Dev [Internet] 2012 Jan [cited 2018 Dec 7]; 83(1): 337–350. http://doi.wiley.com/10.1111/j.1467-8624.2011.01682.x. Accessed January 29, 2021.

22. Pandit PM, Bhatia G, and Sarkar S. Treatment experience for opioid use disorder during COVID-19 in India: Learning from patients. J Subst Abuse Treat 2020 Dec; 119: 108128.

23. Press Trust of India. Hooch tragedy: Death toll in Punjab spurious liquor case rises to 62. Business Standard India [Internet]. 2020 Aug 1 [cited 2021 Jan 2], https://www.business-standard.com/article/current-affairs/hooch-tragedy-death-toll-in-punjab-spurious-liquor-case-rises-to-62-2020080101058_1.html. Accessed January 29, 2021.

24. News18. Alcoholics turn to sanitisers during lockdown; Madhya Pradesh officials claim ignorance [Internet]. [cited 2020 Jun 20]. https://www.news18.com/news/india/alcoholics-turn-to-sanitisers-during-lockdown-madhya-pradesh-officials-claim-ignorance-2603997.html. Accessed January 29, 2020.

25. Farhoudian A, Baldacchino AM, Clark N, et al. COVID-19 and substance use disorders: Recommendations to a comprehensive healthcare response. An International Society of Addiction Medicine (ISAM) Practice and Policy Interest Group Position Paper. 2020 May 14 [cited 2020 Jul 2]. https://figshare.com/articles/preprint/COVID-19_and_Substance_Use_Disorders_Recommendations_to_a_Comprehensive_Healthcare_Response/12035567. Accessed January 29, 2021.

27. Balhara YPS, Singh S, and Narang P. The effect of lockdown following COVID-19 pandemic on alcohol use and help seeking behaviour: Observations and insights from a sample of alcohol use disorder patients under treatment from a tertiary care centre. Psychiatry Clin Neurosci [Internet]. 2020 May 28 [cited 2020 Jun 20]; pcn.13075. https://onlinelibrary.wiley.com/doi/abs/10.1111/pcn.13075. Accessed January 29, 2020.

28. Charles G and Alexander C. Youth substance abuse: Gaps in services, research and policy. Ottawa, ON: Canadian Centre on Substance Abuse, 2007, p. 38–44.

29. Parmar A, Rina K, and Padhy SK. COVID-19 pandemic and people who use opioids in India: Opportunities and evolutions. Indian J Psychol Med [Internet] 2020 Nov [cited 2020 Dec 17]; 42(6). https://journals.sagepub.com/doi/full/10.1177/0253717620958882. Accessed January 29, 2021.

30. Joseph SJ, Bhandari SS, Ranjitkar S, and Dutta S. School closures and mental health concerns for children and adolescents during the COVID-19 pandemic. Psychiatr Danub [Internet] 2020 [cited 2020 Dec 17]; 32(2): 309–310. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7472774/. Accessed January 29, 2021.