

Original Article

Prevalence of and factors associated with psychoactive substance use among people in prisons: A multi-centre, cross-sectional study in India

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Background and objectives: Large-scale studies on the prevalence of substance use disorder among people in prisons from developing countries such as India are limited, despite a sizeable number of individuals lodged in prisons. The present study aimed to assess the prevalence of various psychoactive substance use among people in prisons in India, and to assess factors associated with psychoactive substance use in prison.

Methods: Seventeen prisons from 9 States representing different geographical regions of the country were selected. 7004 incarcerated people selected by systematic sampling were interviewed using a structured questionnaire.

Results: Majority were incarcerated for the first time (n=5372, 77%) and were under remand awaiting trial or sentencing (n=4537, 65%). The proportion of incarcerated persons with lifetime use of alcohol, cannabis, and opioids was 51% (n=3579), 20% (n=1383), and 11% (n=758), respectively. 21% (n=752) of alcohol users, 30% (n=411) of cannabis users, and 45% (n=340) of opioid users used alcohol, cannabis, and opioids respectively daily in the one month before their current imprisonment. 5.9% (n=412) used a psychoactive substance (including alcohol and illicit drugs) during their current imprisonment, most commonly, cannabis (3.9%, n=273). Multivariable regression showed that psychoactive substance use in prison was significantly associated with younger age [odds ratio (OR): 1.4, 95% confidence interval (CI): 1.1, 1.8], multiple imprisonment (OR: 1.6, 95% CI: 1.3, 2.0), cannabis use before imprisonment (OR: 5.5, 95% CI: 4.1, 7.4), and substance withdrawals inside prison (alcohol OR: 1.8, 95% CI: 1.4, 2.4, cannabis OR: 2.9, 95% CI: 2.1, 4.1, opioids OR: 3.1; 95% CI: 2.3, 4.2).

Interpretations and conclusions: The study documents high lifetime substance use among individuals in prisons in India and identifies various factors associated with substance use during current imprisonment.

Keywords Imprisoned individuals; Incarceration; India; Prisons; Substance-related disorders

It is estimated that there are over 10.7 million incarcerated people around the world.¹ Around one out of every five persons in prison around the world

are imprisoned for drug-related offences.^{2,3} Studies across the world have documented substantial drug use among people in prisons. A systematic review

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that assessed substance use among people in prison in low-and-middle-income countries showed that the pooled prevalence of alcohol and illicit drug use during imprisonment to be 16% and 25%, respectively.⁴ Similarly, the pooled prevalence for alcohol use before imprisonment was 71%, while for illicit drugs was 48%. Similarly, a meta-analysis from ten countries estimated the pooled 12-month prevalence rate of alcohol use disorders for males in prisons to be 24%, and that of other drug use disorders to be 30%.³ However, there was heterogeneity between the individual studies. Other studies have also estimated high rates of substance use among people in prisons before as well as during their imprisonment.⁵ Most meta-analyses do not have data from India.

India has a sizeable population of individuals in prisons. As per the prison statistics for India, 2022, there were 573,220 people in prisons in India at the end of 2022, of whom, three-fourths were remandees awaiting trial or sentencing (referred to as 'undertrials' in India).⁶ As per the National Crimes Record Bureau 2022, 115,236 persons have been arrested under Narcotic Drugs and Psychotropic Substances (NDPS) Act, which is equivalent to 8.4 crimes per 100,000 population.⁶ There are small studies assessing substance use among people in prisons in India.⁷⁻⁹ Most of these studies have examined drug use in single prisons with small sample sizes, making generalisations of patterns of substance use to people incarcerated in prisons in India challenging. Hence, there is a need to conduct a large-scale survey on the pattern of substance use among people in prison in the country.

Prison environment such as overcrowding, poor ventilation, or high-risk behaviour can adversely affect the health of people who use substances.¹⁰ There is also evidence that treatment of individuals with substance use disorders in prisons can not only reduce the harms related to these high risk behaviours, but also can lead to reduction in drug use and recidivism.^{11,12} Available literature and anecdotal reports suggests that there is limited availability of treatment of substance use disorder in Indian prisons.¹³⁻¹⁵ The existing narcotic policy too does not support proven treatment such as opioid agonist treatment for individuals with opioid dependence in prisons.¹⁶ Hence, understanding the pattern of substance use among people in prisons and various factors associated with substance use is necessary to plan appropriate interventions. The current study was planned with the aim to assess the prevalence of various psychoactive substance use among people in prisons in India.

Methods

This cross-sectional study was undertaken by National Drug Dependence Treatment Centre, All India Institute of Medical Sciences, New Delhi after obtaining the ethical clearance from the Institute Ethics Committee of AIIMS, New Delhi.

The present study was one of the 'focused thematic studies' (FTS) conducted as part of the national survey on the extent and pattern of substance use conducted in India in 2019.¹⁷ While the national survey focused on representative samples from the general population, smaller studies were conducted that focused on understanding psychoactive substance use among specific populations such as students, female sex workers, transgenders, homeless population, *etc.* The present focused thematic study focused on assessment of psychoactive substance use among prison population. The objectives of the study were to assess the prevalence of psychoactive substance use among people in prisons across different timepoints (lifetime, one-month period before current imprisonment, and during imprisonment), and to assess factors associated with psychoactive substance use inside prisons.

Sample selection: Ten States from five geographical regions of India (4 from North, 2 from South, 1 from East, 1 from West, and 2 from North-East) were chosen conveniently for data collection to ensure geographical representativeness. It was planned to select two prisons (one central and one district prison) from each selected State considering that the environment in both the types of jails could be different. Central jails usually lodge individuals who are imprisoned for longer periods and have larger capacity compared to district jails. Based on the usual number of individuals lodged in the selected jails, we planned to collect data from 7600 individuals. The prison authorities did not grant permission for data collection in three prisons; hence, we could collect data from 7004 individuals lodged in 17 out of 20 selected prisons. The distribution of prisons and States is shown in **Table I**.

For selecting the participants, we first collected information on the total number of incarcerated individuals lodged in the selected prison at the start of the data collection in the selected prison. We then used systematic sampling to select the incarcerated individual within each prison. The incarcerated individuals were listed as per the barrack and jail number. The total number of individuals lodged in the prison was divided by the desired sample size for that prison to get number 'n'. Starting with this number,

Table I. States and prisons from where the participants were selected

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Region	State	Prison site	Type of prison	Number of individuals lodged at the time of study	Proposed sample size	Participants interviewed (N)
North	Delhi	Tihar complex	Central	2400	500	810
		Mandoli	District	500	500	311
	Uttar Pradesh	Lucknow	District	850	500	500
		Agra	Central	990	500	515
	Punjab	Amritsar	Central	1200	500	509
		Nabha	District	900	300	310
	Jammu and Kashmir	Srinagar	Central	450	200	152
	East	Jharkhand	Ranchi	Central	1600	500
Jamshedpur			District	900	500	503
West	Maharashtra	Kalyan	District	950	500	265
		Mumbai	Central	-	500	0
North East	Manipur	Imphal	Central	700	300	508
		Churachandpur	District	-	200	0
	Assam	Dibrugarh	Central	500	300	300
		Lakhimpur	District	450	200	200
South	Karnataka	Bengaluru	Central	1200	500	520
		Chitradurga	District	500	300	301
	Telangana	Hyderabad	Central	1800	500	500
		Nizamabad	District	500	300	300
Total				16390	7600	7004

every n^{th} individual was selected till the desired sample size was reached. For example, if there are 2000 individuals lodged in the selected prison and we had to interview 400 individuals, then beginning with the fifth individual in the list of incarcerated people, we invited every fifth individual to participate in the interview. If the individual did not agree to be interviewed, the next 5th person was selected till the sample was completed. We included both male and female barracks in the selection of participants. The selection criteria for including an incarcerated individual were: any gender, age 18 yr and above, imprisoned in the prison at the time of interview, available for interview on the interview day, able to participate in the study, and willing to provide informed consent.

Data collection tool: Data were collected using a structured questionnaire prepared for the purpose of the study. The questionnaire was pilot tested on few individuals in prisons before using it for data collection. The areas of assessment included:

- (i) Socio-demographic details including age, gender, marital status, education, and occupation.

- (ii) Details of imprisonment including number of times imprisoned, duration of current imprisonment, whether remanded (undertrial) or sentenced (convicted), number of pending cases, whether access to health care facilities in the lodged prison.
- (iii) Substance use details including lifetime use of various psychoactive substances; pattern of substance use just before current imprisonment; pattern of substance use during current imprisonment; injecting drug use; complications due to substance use (abscess, ulcers, venous complications like scarring of veins and overdose), and treatment for substance use during current imprisonment.
- (iv) Health condition such as history of high-risk behaviours; history of blood-borne viruses (HIV, Hepatitis B and C) and treatment of these infections.

It is to be noted that psychoactive substances in this study refers to alcohol, cannabis, opioids, sedative-hypnotics, cocaine, amphetamines, inhalants, hallucinogens and any other substance (apart from tobacco) used by an individual for recreational purpose.

Study procedures: We obtained necessary administrative clearances from the authorities of each prison. Ethics approval was received from the corresponding author's institution before beginning data collection. The individuals involved in data collection were graduates (in psychology, social work or social sciences) and underwent initial training on the study and the questionnaire. The interview was conducted in a separate room in the prison in a single session lasting for 30 to 40 min by the research staff. The interviewer ensured that the prison authorities or other prison inmates were not present in the interview room. The interviewer was not part of the prison administration, and the information obtained was kept confidential. Data was collected between June 2019 and March 2020. Data was collected only after the participants provided written informed consent. For those participants who were illiterate, the information about the study was provided to them verbally, and any queries were answered before obtaining their consent. All the participants had full freedom to decline to withdraw their consent at any time during the interview. No identifying information was collected from the participants. The participants did not receive any reimbursement or other benefits for participating in the study. The prison authorities were not given access to the hard copies of the interviews conducted in the prisons or to the electronic data. As digital devices are not allowed inside the prison, data were collected in hard copy with paper and pen. Data entry was done by the same person who did the interview.

Statistical analysis: The data were entered and stored on the REDCap, which was downloaded and analyzed using licensed SPSS version 29.0 (IBM Corp., Armonk, NY, USA). Categorical data was summarised as frequency (percentage), while continuous data was summarised as mean [standard deviation (SD) or median, Interquartile range (IQR)] as applicable. A binary logistic regression analysis was performed to test for the association between the considered covariates as independent variables with substance use during current imprisonment as the dependent variable. The independent variables included the use of cannabis, alcohol, opioids, or sedative/hypnotics in the one-month period before current imprisonment; experience of withdrawals of cannabis, alcohol, opioids, or sedative/hypnotics in prison; age, gender, marital status, occupation, type of imprisonment, imprisonment frequency and ever imprisoned due to the narcotic laws. For selecting the variables, we first ran a bi-variate analysis (chi-square test) to select variables

that are significantly associated with substance use in prisons (dependent variable). We considered these significant variables for inclusion in the univariate model. We planned all those variables with a cut-off *P* value of 0.25 or less in the univariate model to be included in the multivariate model.

The results under the binary logistic regression analysis were interpreted in terms of unadjusted (univariate) and adjusted (multivariable) odds ratio with 95% confidence intervals. While developing the multivariable model, a forward stepwise logistic regression procedure was adopted. The choice for the stepwise procedure was based on its robustness in providing the most optimal and interpretable model, which enabled assessment of each independent variable at every step.¹⁸ The thresholds levels for the entry and exit of a particular variable (independent variable) was, respectively, 0.05 and 0.10. We applied Holm adjustment in the *P* value for multiple comparisons as it is less conservative compared to the Bonferroni correction. The fitness of the model was assessed by the Hosmer and Lemeshow test of goodness-of-fit.

Results

A total of 7004 prison inmates were interviewed from the 17 prisons (**Table I**).

Socio-demographic data: The mean age of the participants was 34.3 yr (SD: 12.9), with an age range of 18–86 yr. 21% (n=1467) were illiterate, and 52% (n=3628) of the participants were currently married. Almost all the participants (99%, n=6935) were engaged in some form of occupation before their current imprisonment. The socio-demographic details are shown in **Table II**.

Imprisonment-related details: For the majority (77%, n=5372) of the participants, the current imprisonment was the first imprisonment. 65% (n=4537) were remandees (undertrials), 33% (n=2320) were convicted, and 1.1% (n=80) were 'detainees' (those held in prison under preventive detention laws). The median duration of current imprisonment was 9 months (IQR: 3, 28). Almost half of the participants were currently imprisoned for 12 months or less (55%, n=3856). 9.7% (n=678) reported being arrested under the NDPS Act at least once in their lifetime.

Details of psychoactive Substance use: Alcohol was the most used substance, followed by cannabis, opioids (opium, heroin, or pharmaceutical opioids), and sedative-hypnotics for recreational purposes at least once in their lifetime. Among opioids, heroin

Table II. Socio-demographic details of the participants (N=7004)

Variable	Category	Number (%)
Age (yr)	30 or less	3566 (51)
	31 – 50	2577 (37)
	>50	861 (12)
Gender	Male	6463 (92.6)
	Female	534 (7.6)
	Transgender	7 (0.1)
Education	Illiterate	1467 (20.9)
	Literate without formal education	453 (6.5)
	Educated less than class 10	2296 (32.7)
	Completed class 10	1371 (19.6)
	Completed class 12	673 (9.6)
	Completed Diploma	104 (1.5)
	Graduate and above	563 (8.0)
	Professional or honours	59 (0.8)
	Others	2807 (40.1)
Marital status	Never married	3628 (51.8)
	Currently married	282 (4.0)
	Widower	130 (1.9)
	Separated	81 (1.2)
	Divorced	76 (1.1)
	Others	2807 (40.1)
Occupation before current imprisonment	Professional	363 (5.2)
	Semi-professional	294 (4.2)
	Clerical	159 (2.3)
	Shop owner	502 (7.2)
	Farmer	1315 (18.8)
	Skilled worker	1156 (16.5)
	Semi-skilled worker	1120 (16.0)
	Unskilled worker	2026 (28.9)
	Unemployed	69 (1.0)
	Others	363 (5.2)
	Not known	4 (0)

was the most common type of opioid used (n=540, 7.7%) followed by pharmaceutical opioids (n=291, 4.2%). A small proportion of participants used other psychoactive substances, such as cocaine (1.3%), amphetamine type stimulants (1.7%), or hallucinogens in their lifetime (0.4%). A substantial proportion of 'ever' users reported using these substances in the one-month period before their current imprisonment and reported substance-related withdrawals. The details of psychoactive substance use are provided in **Table III**.

Substance use during current imprisonment: Overall, 5.9% (n=412) reported using any psychoactive substance at least once during their current imprisonment. The prevalence of any illicit drug use (psychoactive substances minus alcohol) during current imprisonment was also 5.9% (n=412). Among those who used cannabis during imprisonment, the most common form of cannabis used was the smoked form of cannabis, *i.e.*, *ganja* (91%, n=247). Among those who used opioids during imprisonment, the most common opioid used in prison was heroin (70%, n=90), of which 55 participants used heroin by the chasing or smoking route and 35 participants used heroin by the injection route. About 26% (n=33) of those who used opioids during current imprisonment used pharmaceutical opioids.

Injecting drug use and other high-risk behaviour-related details: Around 4.3% (n=304) participants reported injecting for recreational or non-medical purposes in their lifetime. A total of 47% (n=142) and 65% (n=198) of these participants reported sharing and reusing their injecting equipment, respectively. About 17% (n=52) reported that they have been injected at least once in their current imprisonment, of whom 50% (n=26) reported sharing injecting equipment. Total 40% (n=120) of those who had ever injected drugs reported having experienced at least one episode of overdose. Similarly, 43 participants self-reported having tested positive for Hepatitis C, and 39 self-reported having tested positive for HIV, out of which 27 were taking anti-retroviral treatment.

Association of psychoactive substance use during current imprisonment with other variables: Logistic regression analysis showed that the use of psychoactive substance during current imprisonment was significantly associated with being younger (age 30 yr or less), male, unmarried, being unskilled and unemployed, being imprisoned more than once, being a remanded (undertrial), arrested under NDPS act, experienced withdrawals inside prison, offered treatment for substance use disorders in prison, and use of psychoactive substances one month before imprisonment. Multivariable regression showed that the variables that remained significantly associated with psychoactive substance use inside prison were younger age, male gender, imprisoned more than once, arrest under the NDPS act, substance (alcohol, cannabis, and opioid) withdrawals inside prison, and cannabis use one month before imprisonment. After Holmes' correction (R console), the variables that remained significantly associated were – cannabis use

Table III. Details of psychoactive substance use among individuals in prison (n=7004)

Substance	Details of substance use				
	Ever use (N,%)	Use at least once in one-month period before current imprisonment (N,%)	Daily use in one-month period before current imprisonment (N,%)	Experienced related withdrawals during current imprisonment	Use at least once during current imprisonment
Alcohol	3579 (51.2)	2276 (32.5)	752 (10.7)	645 (9.2)	64 (0.9)
Cannabis	1383 (19.7)	821 (11.7)	411 (5.8)	422 (6.0)	273 (3.9)
Opioids	758 (10.8)	511 (7.2)	340 (4.9)	403 (5.8)	129 (1.8)
Sedative-hypnotics	297 (4.2)	214 (3.1)	112 (1.5)	113 (1.6)	45 (0.6)

Table IV. Factors associated with use of psychoactive substances during current imprisonment

Item	Response	Total N (N=7004)	Drug use in prison (N=412); n (%)	Univariate regression analysis		Multivariable regression analysis	
				Unadjusted odds ratio (95% CI)	P value*	Adjusted odds ratio (95% CI)	P value*
Age (yr)	Up to 30	3566	286 (8.02)	2.29 (1.85, 2.84)	<0.001	1.42 (1.11,1.81)	<0.001
	Above 30 [#]	3438	126 (3.66)				
Gender	Males	6463	408 (6.31)	9.05 (3.37, 24.31)	0.001	3.39 (1.25,9.22)	<0.001
	Others [#]	541	4 (0.74)				
Education	Less than class 10	4216	261 (6.19)	1.15 (0.94, 1.42)	0.18	NS	
	Class 10 and above [#]	2788	151 (5.42)				
Marital Status	Unmarried currently	3376	271 (8.03)	2.16 (1.75, 2.66)	<0.001	NS	
	Currently married [#]	3628	141 (3.89)				
Occupation	Unskilled and unemployed	3215	220 (6.84)	1.31 (1.06, 1.61)	0.012	NS	
	Skilled and above [#]	3789	192(5.07)				
Imprisoned first time vs more than one time	More than one time imprisoned	1632	177 (10.8)	1.82(1.36, 2.43)	<0.001	1.62 (1.28, 2.05)	<0.001
	First time imprisoned [#]	5372	235 (4.4)				
Imprisoned under the narcotic law	Yes	678	73 (10.77)	2.13 (1.63,2.78)	0.009	1.54 (1.11,2.13)	<0.001
	No [#]	6326	339 (5.36)				
Type of imprisonment	Remanded (Undertrial)	4537	303 (6.68)	1.55 (1.24, 1.94)	<0.001	NS	
	Others [#]	2467	109 (4.42)				
Opioid withdrawals inside prison	Yes	403	116 (28.78)	8.61 (6.74, 11.00)	<0.001	3.08 (2.25, 4.21)	<0.001
	No [#]	6601	296 (4.48)				
Cannabis withdrawals inside prison	Yes	422	177 (41.94)	19.51 (15.46, 24.63)	<0.001	2.94 (2.12,4.08)	<0.001
	No [#]	6582	235 (3.57)				
Alcohol withdrawals inside prison	Yes	645	122 (18.91)	4.88 (3.88, 6.14)	<0.001	1.82 (1.36, 2.43)	<0.001
	No [#]	6359	290 (4.56)				
Sedative-hypnotic related withdrawal inside prison	Yes	113	43 (38.05)	10.86 (7.32, 16.10)	<0.001	NS	
	No [#]	6891	369 (5.35)				

Contd...

Item	Response	Total N (N =7004)	Drug use in prison (N=412); n (%)	Univariate regression analysis		Multivariable regression analysis	
				Unadjusted odds ratio (95% CI)	<i>P</i> value*	Adjusted odds ratio (95% CI)	<i>P</i> value*
Cannabis use in the one-month period before imprisonment	No [#]	4727	180 (3.81)				
	Yes	822	243 (29.56)	14.93 (12.06, 18.50)	<0.001	5.55 (4.15, 7.41)	<0.001
Opioid use one month before imprisonment	No [#]	6182	169 (2.73)				
	Yes	511	132 (25.83)	7.73 (6.13, 9.74)	<0.001	NS	
Sedative hypnotic use one month before imprisonment	No [#]	6493	280 (4.31)				
	Yes	214	71 (33.18)	9.39 (6.92, 12.73)	<0.001	NS	
Treatment for SUD offered in prison	No [#]	6790	341 (5.02)				
	Yes	1271	164 (12.9)	3.28 (2.66, 4.03)	<0.001	NS	
	No	5733	248 (4.3)				

Significant at *P**<0.05. CI, confidence interval; SUD, substance use disorder; [#]Reference category

one month before imprisonment, opioid, cannabis, and alcohol withdrawals inside prison, younger age, and getting imprisoned more than once. The odds ratio and the corresponding 95% CI are provided in **Table IV**.

Though the Hosmer and Lemeshow test of goodness-of-fit of the final model was statistically significant ($\chi^2=75.063$, $df=4$, $P<0.001$), the model could correctly predict use or non-use of substances in 93.7% of cases accurately.

Discussion

The present study found that around half of imprisoned individuals had used psychoactive substances in their lifetime, while one in 20 reported psychoactive substance use inside prisons during their current imprisonment. The lifetime prevalence of use of all substances in the prison population in our study was higher than in the general population, which can be attributed to various reasons, such as criminalisation of substance use and engagement of individuals with substance use disorder in acquisitive crimes to finance their substance use. However, compared to other Indian studies or studies from other countries, the prevalence of psychoactive substance use inside prisons is lower in our study.^{4,9} Our study covered multiple prisons from a wider geographic area of the country; regional variations may have contributed to lower prevalence rates at the national level. In addition, other factors like the prevalence of substance use in the general

population in the area where the study is conducted, the degree of law enforcement, the milieu in the prison, and the influence of other incarcerated individuals can also influence the prevalence of substance use inside prison.^{19,20}

Our study also showed that multiple imprisonment and substance use before imprisonment was associated with substance use inside prisons, which is reported in other studies as well.²¹ Previous studies have also found that psychoactive substance use is associated with increased risk of recidivism, and, hence, they have higher chances of being imprisoned multiple times.²² Experience of substance-related withdrawals at the time of prison entry was also associated with substance use inside prisons in our study, similar to findings from other studies.²³ Withdrawals, especially those of alcohol and sedatives/sleeping pills, can also lead to life-threatening complications. Individuals either continue or even increase their substance use inside prison as they are afraid of withdrawal.²⁴ These findings underscore the importance of providing treatment for substance use disorder during imprisonment. In fact, prisons can be a very important setting for treatment for substance use disorder, thereby bridging the treatment gap in individuals with substance use disorder. Studies show that treatment of persons with substance use disorders while being imprisoned can bring about a significant reduction in drug use and recidivism.²⁵ It is interesting to note that withdrawals, not substance

शोध-संदेश

भारत की विभिन्न जेलों में किए गए इस अध्ययन में नशीले पदार्थों के उपयोग की स्थिति और उससे जुड़े कारणों का आकलन किया गया। अध्ययन में पाया गया कि जेलों में रहने वाले कई लोग इन पदार्थों का सेवन करते हैं, जिससे उनके शारीरिक और मानसिक स्वास्थ्य पर प्रतिकूल प्रभाव पड़ सकता है। अध्ययन के निष्कर्ष बताते हैं कि जेलों में नशा उपयोग विकार (substance use disorder) की समय पर पहचान, वैज्ञानिक आधार पर उपचार, और परामर्श सेवाओं को मजबूत करने की आवश्यकता है, ताकि कैदियों के स्वास्थ्य में सुधार लाया जा सके।

use in the one-month period before imprisonment, were associated with substance use inside prisons. Psychoactive substance use in the one-month period before imprisonment may mean either use daily or even on 1 – 2 occasions in that month. The study shows that withdrawals (which can be considered as proxy markers for frequent, including daily use) increase the likelihood of substance use continuing in prisons as well, while irregular substance use before imprisonment is not associated with continued use in prisons.

The present study has many strengths. It was carried out in 17 prisons located across different geographical regions of India. The participants were selected through systematic sampling, thereby minimising bias in participant selection. The data was collected using trained research staff who were not part of the prison administration, ensuring privacy and confidentiality of the data.

The study had certain limitations as well. Though the study was conducted across multiple prisons, the sample was not nationally representative, thereby limiting the generalisation of the findings. We deliberately avoided conducting analysis at the regional or prison-wise level of substance use, as that might have led to adverse reports on the prison authorities. For the same reason, we have not reported the profile of the prison itself (capacity, occupancy, availability of healthcare, etc.). Finally, we did not include urine testing to confirm recent substance use and relied on participants' self-reports alone. This could have led to under-reporting of substance use among the participants due to socially desirable answers by the participants. Despite these limitations, the current study provides important insights into the situation of substance use in Indian prisons.

Taken together, the findings of the study clearly demonstrate the need to scale up addiction treatment in prison settings in India. Individuals should be screened for substance use disorder at prison entry. The prison reception routine should include systems for identifying individuals with high treatment needs immediately on arrival, including management

of substance withdrawals.²⁶ This will also ensure continuity of community treatment inside prisons, including continuity of OAT medicines. OAT, which is the most effective form of opioid dependence treatment, should also be scaled up in prisons, given that a substantial number of individuals use opioids before imprisonment and suffer from opioid withdrawal. Along with treatment provision, systems should be put in place to ensure continuity of treatment post-release from prisons. Importantly, substance use disorder treatment in prisons must follow ethical guidelines and uphold human rights and dignity.²⁷

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