

CUIDADO É FUNDAMENTAL

Escola de Enfermagem Alfredo Pinto – UNIRIO

ORIGINAL ARTICLE

DOI: 10.9789/2175-5361.rpcfo.v17.13792

PROFILE OF PSYCHOACTIVE SUBSTANCE USERS TREATED AT CAPS AD IN A MUNICIPALITY IN WESTERN PARÁ, AMAZONIA, BRAZIL

Perfil dos usuários de substâncias psicoativas atendidos no caps ad, em um município do oeste do Pará, amazônia, Brasil

Perfil de los usuarios de sustancias psicoactivas atendidos en el caps ad, en un municipio del oeste de Pará, amazonía, Brasil

Aline dos Santos Albuquerque¹ 

Deliane dos Santos Soares² 

Fabiane Corrêa do Nascimento³ 

Flávia Garcez da Silva⁴ 

RESUMO

Objetivo: traçar o perfil dos usuários de substâncias psicoativas atendidas no Centro de Atenção Psicossocial Álcool e outras Drogas de Santarém, no Pará, com ênfase em estudos imunocromatográficos. **Metodologia:** foram selecionados 41 participantes para a pesquisa, que aceitaram através da assinatura do Termo de Consentimento Livre e Esclarecido e receberam um questionário para informações sociodemográficas e dados de consumo de drogas lícitas e ilícitas. Foram coletadas amostras de urina para realização de teste rápido para detecção qualitativa de 6 drogas de abuso. **Resultados:** dos 41 pacientes, 36 homens e 5 mulheres, a maioria possuindo faixa etária entre 21 e 40 anos, com renda de um salário-mínimo e ensino fundamental incompleto. 13 participantes afirmaram usar maconha, substâncias alucinógenas e álcool. 19 apresentaram resultados positivos para pelo menos uma das substâncias testadas. **Conclusão:** o uso substâncias psicoativas em um município do oeste paraense é semelhante aos dados encontrados em muitas regiões do Brasil.

DESCRIPTORES: Psicotrópicos; Farmacodependentes; Dependência química.

^{1,2,3,4} Universidade Federal do Oeste do Pará, Pará, Santarém, Brasil.

Received: 2025/02/12. **Accepted:** 2025/05/05

CORRESPONDING AUTHOR: Flávia Garcez da Silva

E-mail: flavia.gs@ufopa.edu.br

How to cite this article: Albuquerque AS, Soares DS, Nascimento FC, Silva FG. Profile of psychoactive substance users treated at caps ad in a municipality in western Pará, Amazonia, Brazil. R Pesq Cuid Fundam (Online). [Internet]. 2025 [cited year month day];17:e13792. Available from: <https://doi.org/10.9789/2175-5361.rpcfo.v17.13792>.



ABSTRACT

Objective: To outline the profile of psychoactive substance users treated at the Psychosocial Care Center for Alcohol and Other Drugs in Santarém, Pará, with an emphasis on immunochromatographic studies. **Methodology:** A total of 41 participants were selected for the study; they agreed by signing the Informed Consent Form and completed a questionnaire collecting sociodemographic information and data on the use of legal and illegal drugs. Urine samples were collected for rapid testing to qualitatively detect six drugs of abuse. **Results:** Of the 41 patients, 36 were men and five were women, most aged between 21 and 40 years, with an income equivalent to one minimum wage and incomplete primary education. Thirteen participants reported using marijuana, hallucinogenic substances, alcohol, among others, and 19 tested positives for at least one of the substances analyzed. **Conclusion:** The use of psychoactive substances in a municipality in western Pará is similar to the data found in many regions of Brazil

RESUMEN

Objetivo: Trazar el perfil de los usuarios de sustancias psicoactivas atendidos en el Centro de Atención Psicosocial Alcohol y otras Drogas de Santarém, en Pará, con énfasis en estudios inmunocromatográficos. **Metodología:** Se seleccionaron 41 participantes para la investigación, quienes aceptaron mediante la firma del Término de Consentimiento Libre e Informado y recibieron un cuestionario con información sociodemográfica y datos sobre el consumo de drogas lícitas e ilícitas. Se recolectaron muestras de orina para la realización de una prueba rápida para la detección cualitativa de seis drogas de abuso. **Resultados:** De los 41 pacientes, 36 eran hombres y cinco mujeres, la mayoría con edades entre 21 y 40 años, con ingresos equivalentes a un salario mínimo y educación primaria incompleta. Trece participantes afirmaron consumir marihuana, sustancias alucinógenas, alcohol, entre otras, y 19 obtuvieron resultados positivos para al menos una de las sustancias analizadas. **Conclusión:** El uso de sustancias psicoactivas en un municipio del oeste de Pará es similar a los datos encontrados en muchas regiones de Brasil.

DESCRIPTORES: Psicotrópicos; Farmacodependientes; Dependencia química.

INTRODUCTION

The use of psychoactive substances (PAS) dates back to prehistoric times and was practiced as a way of increasing pleasure and relieving suffering. However, drug use today has transcended these purposes and has become a commercial product accessible to people of both sexes and all ages, regardless of education or purchasing power.¹ Studies on alcohol and other drug addiction in Brazil indicate a prevalence of 3% to 10% in the adult population. Among psychoactive substances, alcohol stands out as the most consumed in the country.²

According to the 2019 World Drug Report, around 271 million people aged between 15 and 64 used some type of PAS in 2017, and 35 million suffered from use disorders. In particular, 53 million used opioids, an increase of 56% compared to 2016.³

According to the III National Survey on the Use of Drugs by the Brazilian Population, based on the use of illicit substances throughout life, in the last 12 months and in the last 30 preceding the survey, the data showed a prevalence of the use of PAS by intermediate age groups, especially among young adults (25-34 years), showing the highest rates.⁴

Due to the increase in alcohol and drug abuse among children, adolescents and adults, the Psychosocial Care Center - Alcohol and Drugs (CAPS AD) was created to offer specialized support and combat the physical, mental and psychological consequences of addiction.⁵ The CAPS is a mental health care device that works as an alternative to the psychiatric hospital, integrating the care and assistance network for people with mental disorders. The CAPS AD, in particular, is aimed at users of psychoactive substances, providing individual and group therapeutic activities, workshops, home visits and community actions for social and family reintegration, as well as support for detoxification.⁶ This model seeks to create a welcoming and treatment environment, aimed at reducing the negative impact of PAS use on the lives of users and their families, promoting recovery and reintegration into society.

In the municipality of Santarém, in the state of Pará, with more than 331,000 inhabitants, there are three Psychosocial Care Centers (CAPS): CAPS I, CAPS II and CAPS AD. CAPS AD, which opened in 2010, is managed by the Municipal Health Department (Semsu) and has more than 4,500 people registered. In other words, one CAPS AD unit to serve the entire population of this city, which creates the risk that the care system will not reach all the people who need this service.

Understanding the health profile of patients treated in services such as CAPS AD is crucial for improving and managing health actions, as it allows for the personalization of services and adequate care for patients' specific needs. Oliveira et al.⁷ point out that studies of this nature are fundamental for guiding health policies and improving therapeutic plans, ensuring more effective and targeted care.

The aim of this study was therefore to outline the profile of users of psychoactive substances (PAS) treated at the CAPS AD in Santarém, Pará, with an emphasis on immunochromatographic studies, given that data on these tests is scarce in the scientific literature.

METHOD

The research was carried out at the Alcohol and Other Drugs Psychosocial Care Center - CAPS AD, located in the municipality of Santarém - PA, mesoregion of the Lower Amazon. Forty-one participants were selected for the study who were treated at the CAPS AD.

Initially, meetings were held at the CAPS AD in order to clarify the objectives of the research, possible risks and benefits of the study. Participants who agreed to take part

in the study were taken to a room individually to sign the Informed Consent Form (ICF). The research was previously approved by the Research Ethics Committee (CEP) of the Federal University of Western Pará (UFOPA).

A questionnaire was then administered in order to collect sociodemographic information from the research participants and data on the use of licit and illicit drugs.

Urine samples were collected for a rapid immunochromatographic test for the qualitative, simultaneous and differentiated detection of drugs of abuse such as: Cocaine (COC), Tetrahydrocannabinol (THC), Amphetamine (AMP), Methamphetamine (MET), Benzodiazepines (BZD), Morphines (MPO); the test uses monoclonal antibodies to selectively detect high levels of specific drugs in the urine.

RESULTS

Of the 41 survey participants treated at CAPS AD, 36 (~87.8%) were men and five (~12.2%) were women. With regard to socio-demographic data, most of the interviewees were aged between 21 and 40 (~48.78%), earned one minimum wage (~48.78%) and had incomplete primary education (~29.27%), as shown in Table 1.

Table 1 - Data on age, income and schooling of survey participants, Santarém, PA, Brazil, 2024.

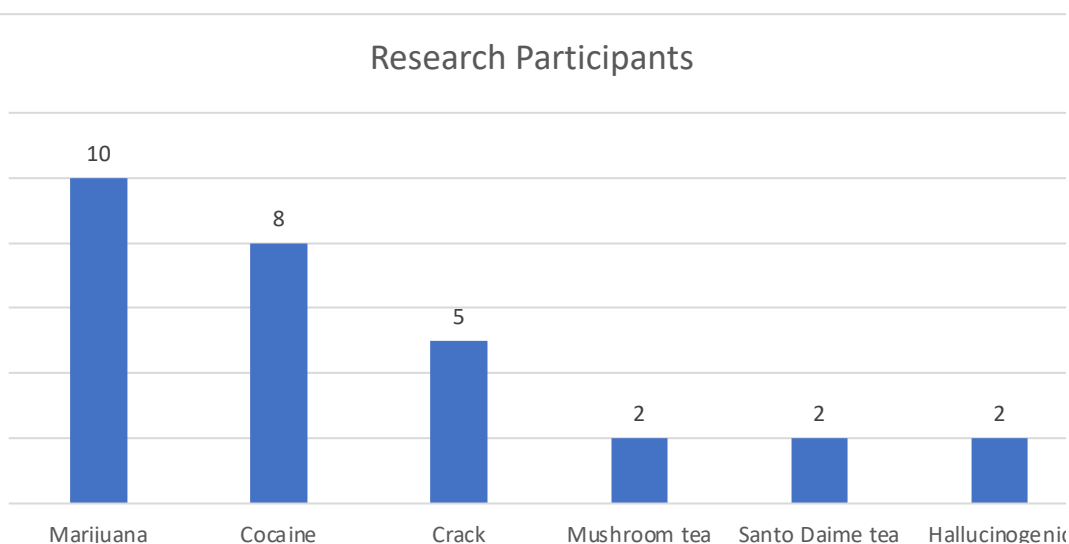
		Quantity	%
Age group	21-40 years old	20	48,7
	41-60 years old	19	46,3
	>60 years old	2	4,8
Income	<1 minimum wage	11	26,8
	1 minimum wage	20	48,7
	2 minimum wages	5	12,1
	3 minimum wages	3	7,3
	4 minimum wages	1	2,4
	>4 minimum wages	1	2,4
	Illiterate	2	4,8
Education	Elementary school incomplete	12	29,2
	Complete elementary school	2	4,8
	High school incomplete	7	17,0
	High school complete	9	21,9
	Higher education incomplete	5	12,1
	Higher education complete	4	9,7

Source: Authors (2025).

When asked which psychoactive substances they used, 13 (31.7%) participants said they used marijuana, hallucinogenic substances, alcohol, among others. In addition, 7 (17.07%)

participants reported frequent use of these substances. It should be noted that 4 (30.76%) reported using four or more drugs simultaneously.

Graph 2 - Questionnaire data on the use of narcotic substances by survey participants.



Source: Authors (2025)

As for the results of the rapid immunochromatographic tests for the rapid and qualitative detection of 10 types of psychoactive drugs and their metabolites in human urine,

the results showed that 30 participants (73.2%) were negative, but 11 (26.8%) tested positive for at least one of the substances tested, as shown in Graph 3.

Graph 3 - Results of the immunochromatographic test to detect drugs of abuse.



Source: Authors (2025)

DISCUSSION

The study's findings that the majority of patients were male were also identified in other studies that analyzed the profile of the populations treated in CAPS AD in different municipalities and regions of Brazil.⁸⁻¹¹

In this study's sample, it was observed that the vast majority of patients in treatment were male, corroborating the findings of other studies which highlight the predominance of men in care services for drug users.¹²⁻¹⁴

Although the international literature records a significant increase in the consumption of psychoactive substances by women in recent decades¹², studies by Oliveira et al.¹³ and Sousa and Oliveira¹⁵ indicate that they tend to seek and remain in treatment less for disorders related to the consumption of these substances. This lower adherence is associated with historical and cultural factors that influence the role of women in society, the social stigma attached to drug use and changes in self-image. These factors generate repression in their attitudes and intensify the feeling of shame, which contributes to the delay in seeking treatment for disorders resulting from the use of psychoactive substances.¹²⁻¹⁴

The study by Faria and Schneider¹⁶, carried out at the CAPS AD in Blumenau - SC, showed the age distribution of users, highlighting that the majority were over 34 years old. These data are in line with the results of Freitas et al.¹⁷, who identified a higher incidence of care among individuals aged 31 and over at the CAPS AD in Picos - PI. Monteiro¹⁸ pointed out that 87.7% of users at CAPSad in Teresina, PI, were aged between 19 and 59, corroborating the results of this study.

The consumption of psychoactive substances usually starts early, in adolescence. However, seeking treatment usually only occurs in adulthood, when the individual is already facing significant impacts on their physical and mental health as a result of prolonged consumption of these substances.^{13,15,19}

As for schooling, the predominance of participants with incomplete primary education is consistent with the findings of a study carried out in an outpatient clinic for the treatment of disorders related to the consumption of psychoactive substances in the state of Rio Grande do Sul. This study, which analyzed 1,469 medical records of patients undergoing treatment, found that 42.7% had incomplete primary education. The literature shows that dropping out of school may be associated with learning difficulties resulting from early consumption of psychoactive substances. By acting directly on the central nervous system, these substances cause harmful effects on cognition, affecting aspects such as attention, memory and responsibility.²⁰

The low level of education often observed among individuals with psychoactive substance use disorders also has significant consequences in the professional field. Lack of education limits professional qualification and training, resulting in low-paying jobs and greater social vulnerability.¹⁹

In addition, the literature suggests a relationship between school dropout and drug use, possibly due not only to drug use, but also to the associated consequences, such as cognitive difficulties and general health problems.²¹

The employment situation differs from studies in the same segment. A study that assessed the sociodemographic and clinical profile of people treated at a CAPS AD in southern Brazil reported that 45.4% of those interviewed were unemployed.⁷ Studies have also shown that the majority of those interviewed were unemployed.^{18,22}

With regard to family income, the majority of participants (95.12%) stated that they earned between <1 and 3 minimum wages. Similarly, a survey of 588 crack users in a treatment unit for disorders related to the consumption of psychoactive substances in the state of Goiás revealed that 62.6% of the sample had an income of less than three minimum wages.²³

The most commonly reported psychoactive substance (PAS) was marijuana (10), followed by cocaine (7) and crack (5), but studies have found more alcohol consumption in the units studied, and PAS such as marijuana and cocaine were reported less frequently in these studies.^{7,22}

The III National Survey on the Use of Drugs by the Brazilian Population (LNUDP), from 2017, points out that in a specific cut of the 30 days prior to the interview, the highest prevalence of consumption was observed for marijuana, used by around 2.2 million individuals. This figure is significantly higher, being at least five times higher than for any other substance. The second most frequently consumed substance during this period was powder cocaine, followed by smoked cocaine, whose values were relatively close to powder cocaine.⁴ This justifies the choice of tetrahydrocannabinol and cocaine in this study.

The survey also points out that the use of marijuana and cocaine can be associated with the use of tobacco, which can further intensify its use, given that the use of cigarettes is extremely present in Brazilian society. While marijuana has been observed in 2.2 million people, tobacco is present in the daily lives of 26.4 million.⁴ Although tobacco use associated with PAS is low from a statistical point of view, a scenario of popularization of this type of illicit use could further increase the number of PAS users.

In relation to immunochromatographic analyses, studies report that they are widely used as a routine in the analysis of drugs in biological fluids or other matrices. These methods

can be applied more restrictively or comprehensively, and are based on the principle of interaction between antigens (target molecules) and antibodies. In the application to substance testing, the technique uses an antibody specific to the xenobiotic or class of drugs to be analyzed, together with a classified model of the same drug or antibody, with the aim of generating a measurable signal.²⁴

The results of this study showed that the majority of participants did not present a sample that reacted to THC or COC, which may indicate that the treatment and follow-up are having an effect and generating a change in lifestyle. However, of those who reacted to one of these SPAs, almost half reacted to the two SPAs evaluated.

According to the III LNUDPB, around 11.7% of Brazilians aged between 12 and 65, which is equivalent to 17.8 million people, have consumed alcohol and tobacco in the last 12 months prior to publication. Approximately 2.6% (almost 4 million individuals) reported consuming alcohol in combination with at least one illicit substance, while 1.5% (around 2.3 million people) consumed alcohol in combination with non-prescribed medication in the same period.⁴ This use of alcohol with PAS may explain why 62.85% of the reagent samples showed the presence of benzodiazepines in the respective patients.

The concomitant use of drugs of abuse such as marijuana and cocaine with some classes of medication can lead to certain harmful interactions, some of which are serious and potentially fatal. Marijuana can increase the risk of cardiovascular events when combined with sildenafil and increase the risk of bleeding when used with warfarin. Joint use with barbiturates intensifies sedation, while interaction with cocaine can increase the toxic effects of the substance. Antidepressants such as fluoxetine increase the risk of mania when combined with marijuana, and concomitant use with tricyclic antidepressants can lead to delirium and tachycardia.²⁵

The vast majority of studies, such as those cited in this paper, are based on sociodemographic information, i.e. without carrying out immunochromatographic tests, which would provide fundamental data for statistical analyses of the use of drugs of abuse by patients at CAPS AD in the country, such as recidivism, use of drugs associated with medication, disordered use of medicinal substances, evolution of patients in treatment, etc.

CONCLUSION

The data from the study makes it clear that the most consistent profile for people who use PAS are those who have an income of 3 to <1 minimum wage; who are self-employed or unemployed; and have incomplete primary education. However,

the presence of participants with stable jobs and higher education who also use CAPS AD services is also evident.

As for the toxicological tests on urine samples using the immunochromatography screening method, the results obtained were: marijuana and cocaine, which corroborate research on the subject in Brazil.

REFERENCES

1. Vieira F, Mendes L, Silveira AR, Sampaio CA. Perfil dos usuários do Centro de Atenção Psicossocial Álcool e Outras Drogas de Montes Claros, Minas Gerais, Brasil. *Rev Unimontes Científica*. [Internet]. 2015 [acesso em 2 de fevereiro de 2025];17(1). Disponível em: <https://www.periodicos.unimontes.br/index.php/unicientifica/article/view/1941>.
2. Pillon SC, Luis MAV. Modelos explicativos para o uso de álcool e drogas e a prática da enfermagem. *Rev Latino-Am Enfermagem*. [Internet]. 2004 [acesso em 19 de dezembro 2024];12(4). Disponível em: <https://doi.org/10.1590/S0104-11692004000400014>.
3. Escritório das Nações Unidas sobre Drogas e Crime – UNODC. Relatório Mundial sobre Drogas 2019 [Internet]. 2019 [acesso em 15 de janeiro 2025]. Disponível em: https://www.unodc.org/lpo-brazil/pt/frontpage/2019/06/relatorio-mundial-sobre-drogas-2019_-35-milhes-de-pessoas-em-todo-o-mundo-sofrem-de-transtornos-por-uso-de-drogas--enquanto-apenas-1-em-cada-7-pessoas-recebe-tratamento.html.
4. Fundação Oswaldo Cruz. III Levantamento Nacional Sobre o Uso de Drogas pela População Brasileira. [Internet]. 2017 [acesso em 10 de janeiro 2025]. Disponível em: <https://www.arca.fiocruz.br/handle/icict/34614>.
5. Gonçalves TS, Nunes MR. Perfil dos usuários do Centro de Atenção Psicossocial Álcool e Drogas – CAPS AD. *Rev Perquirere*. [Internet]. 2014 [acesso em 19 de dezembro 2024];11(2). Disponível em: <http://perquirere.unipam.edu.br/>.
6. Ministério da Saúde (BR). Portaria GM/MS nº 336, de 19 de fevereiro de 2002 [Internet]. [acesso em 5 de janeiro 2025]. Disponível em: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2002/prt0336_19_02_2002.html.
7. Oliveira VC, Capistrano FC, Ferreira ACZ, Kalinke LP, Felix JVC, Maftum MA. Perfil sociodemográfico e clínico de pessoas atendidas em um CAPS AD do sul do Brasil. *Rev Baiana Enferm*. [Internet]. 2017 [acesso em 16 de setembro 2023];31(1). Disponível em: <https://doi.org/10.18471/rbe.v31i1.16350>.

8. Almeida RA, Anjos UU, Vianna RP, Pequeno GA. Perfil dos usuários de substâncias psicoativas de João Pessoa. *Saúde Debate*. [Internet]. 2014 [acesso em 19 de dezembro 2024];38(102). Disponível em: <https://doi.org/10.5935/0103-1104.20140049>.
9. Carvalho MDA, Oliveira e Silva H, Rodrigues LV. Perfil epidemiológico dos usuários da Rede de Saúde Mental do Município de Iguatu, CE. *Rev Eletrônica Saúde Ment Álcool Drog*. [Internet]. 2010 [acesso em 30 de novembro 2024];6(2). Disponível em: <https://doi.org/10.11606/issn.1806-6976.v6i2p337-349>.
10. Constantino P, Batista LSS. Perfil dos usuários de substâncias psicoativas do CAPS AD em 2000 e 2009, Campos dos Goytacazes, RJ. *Biológicas & Saúde*. [Internet]. 2012 [acesso em 19 de dezembro 2024];2(7). Disponível em: https://ojs3.perspectivasonline.com.br/biologicas_e_saude/article/download/195/106.
11. Pereira MO, Souza JM, Costa ÂM, Vargas D, Oliveira MAF, Moura WN. Perfil dos usuários de serviços de saúde mental do município de Lorena - São Paulo. *Acta Paul Enferm*. [Internet]. 2012 [acesso em 19 de dezembro 2024];25(1). Disponível em: <https://doi.org/10.1590/S0103-21002012000100009>.
12. Greenfield SF, Back SE, Lawson K, Brady KT. Substance abuse in women. *Psychiatr Clin North Am* [Internet]. June 2010;33(2) [cited 2025 feb 2]. Available from: <https://doi.org/10.1016/j.psc.2010.01.004>.
13. Oliveira CAF, Teixeira GM, Silva VP, Ferreira LS, Machado RM. Perfil epidemiológico das internações pelo uso/abuso de drogas na região centro-oeste de Minas Gerais. *Enferm Foco*. [Internet]. 2013 [acesso em 2 de fevereiro 2025];4(3–4). Disponível em: <https://dx.doi.org/10.21675/2357-707X.2013.v4.n3/4.544>.
14. Peixoto C, Prado CHO, Rodrigues CP, Cheda JND, Mota LBT, Veras AB. Impacto do perfil clínico e sociodemográfico na adesão ao tratamento de pacientes de um Centro de Atenção Psicossocial a Usuários de Álcool e Drogas (CAPSad). *J Bras Psiquiatr*. [Internet]. 2010 [acesso em 2 de fevereiro 2025];59(4). Disponível em: <https://doi.org/10.1590/S0047-20852010000400008>.
15. Sousa FSP, Oliveira EN. Caracterização das internações de dependentes químicos em unidade de internação psiquiátrica do hospital geral. *Ciênc Saúde Coletiva*. [Internet]. 2010 [acesso em 2 de fevereiro 2025];15(3). Disponível em: <https://doi.org/10.1590/S1413-81232010000300009>.
16. Faria JG, Schneider DR. O perfil dos usuários do CAPSad-Blumenau e as políticas públicas em saúde mental. *Psicol Soc*. [Internet]. 2009 [acesso em 2 de fevereiro 2025];21(3). Disponível em: <https://doi.org/10.1590/S0102-71822009000300005>.
17. Freitas RM, Silva HRR, Araújo DS. Resultados do acompanhamento dos usuários do Centro de Atenção Psicossocial - Álcool e Drogas (Caps-AD). *SMAD Rev Eletrônica Saúde Ment Álcool Drog*. [Internet]. 2012 [acesso em 2 de fevereiro 2024];8(2). Disponível em: <https://doi.org/10.11606/issn.1806-6976.v8i2p56-63>.
18. Monteiro CFS, Fé LCM, Moreira MAC, Albuquerque IEM, Silva MG, Passamani MC. Perfil sociodemográfico e adesão ao tratamento de dependentes de álcool em CAPSad do Piauí. *Esc Anna Nery*. [Internet]. 2011 [acesso em 2 de fevereiro];15(1). Disponível em: <https://doi.org/10.1590/S1414-81452011000100013>.
19. Capistrano FC, Ferreira ACZ, Silva TL, Kalinke LP, Maftum MA. Perfil sociodemográfico e clínico de dependentes químicos em tratamento: análise de prontuários. *Esc Anna Nery*. [Internet]. 2013;17 [acesso em 2 de fevereiro 2025]. Disponível em: <https://doi.org/10.1590/S1414-81452013000200005>.
20. Mascarenhas MA. Characterization of users of psychoactive substances at the Clinic for Addictive Disorder with emphasis on chemical dependence. *Rev Baiana Saúde Pública*. [Internet]. 2015 [cited 2025 feb 2];38(4). Available from: <https://doi.org/10.22278/2318-2660.2014.v38.n4.a572>.
21. Araujo NB, Marcon SR, Silva NG, Oliveira JRT. Perfil clínico e sociodemográfico de adolescentes que permaneceram e não permaneceram no tratamento em um CAPSad de Cuiabá/MT. *J Bras Psiquiatr*. [Internet]. 2012 [acesso em 2 de fevereiro 2025];61(4). Disponível em: <https://doi.org/10.1590/S0047-20852012000400006>.
22. Trevisan ER, Castro SS. Centros de Atenção Psicossocial - álcool e drogas: perfil dos usuários. *Saúde Debate*. abril de 2019;43(121).
23. Guimarães RA, Silva LN, França DDS, Del-Rios NHA, Carneiro MAS, Teles SA. Risk behaviors for sexually transmitted diseases among crack users. *Rev Latino-Am Enfermagem*. [Internet]. 2015 [cited 2025 feb 2];23(4). Available from: [https://doi.org/10.1016/1054-139x\(93\)90177-q](https://doi.org/10.1016/1054-139x(93)90177-q).
24. Moffat AC, Coverley G. Clarke's Analysis of Drugs and Poisons. 3rd ed. London: Pharmaceutical Press; 2004.
25. Cebrim CFF. Interações medicamentosas com drogas ilícitas. *Farmacoterapêutica*. [Internet]. 2019 [acesso em 2 de fevereiro 2025];23(1). Disponível em: <https://revistas.cff.org.br/farmacoterapeutica/article/view/2535>.