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Original Article

Sociodemographic and pharmacotherapeutic profile of Psychosocial Care Centers III Alcohol and Drugs users

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Objective: to sociodemographically characterize and outline the pharmacotherapeutic profile of the users treated in two Psychosocial Care Centers III Alcohol and Drugs, one for children/adolescents/adults and the other for adults. **Methodology**: a documentary, exploratory and descriptive study with a quantitative and qualitative approach, through the analysis of medical records and semi-structured interviews. **Results**: a total of 156 users were included, most of whom were male, single, black- or brown-skinned, with Incomplete Elementary School, unemployed, and aged between 18 and 29 years old. The drug of choice was marijuana and use initiation was mostly in the age group of 7 to 15 years old. Drug prescription as addiction management occurs in 65% of the cases, with benzodiazepines and antidepressants as the most prescribed medications. **Conclusion**: the sociodemographic profile found is compatible with the literature and the impact of the social factors that lead to vulnerability in the users is closely related to the use of psychoactive substances. Medication use in chemical addiction is still an uncertain intervention due to the physical and mental problems resulting from this addiction, to the drug interactions and to those between the medications and the substances used, in addition to adherence to medication, oftentimes leading to an exchange of "drugs" for "drugs".

Descriptors: Epidemiological Profile; Medications; Mental Health; Alcohol Abuse; Illicit Drugs; Substance Use Disorders.

Perfil sociodemográfico e farmacoterapêutico de usuários dos Centros de Atenção Psicossocial III Álcool e Drogas

Objetivo: caracterizar sociodemograficamente e traçar o perfil farmacoterapêutico dos usuários de dois Centros de Atenção Psicossocial III Álcool e Drogas, um infanto-juvenil-adulto e outro adulto. **Metodologia**: estudo documental, exploratório, descritivo, com abordagem quantitativa e qualitativa, por meio da análise dos prontuários e entrevistas semiestruturadas. **Resultados**: foram incluídos 156 usuários, dos quais a maioria era do sexo masculino, solteiro, negro ou pardo, ensino fundamental incompleto, desempregado, idade entre 18 e 29 anos. A droga de predileção foi a maconha e o início do uso, em sua maioria, foi na faixa etária de 7 a 15 anos. Prescrição de medicamentos como manejo da dependência ocorre em 65% dos casos, sendo os benzodiazepínicos e os antidepressivos os mais prescritos. **Conclusão**: o perfil sociodemográfico encontrado é compatível com a literatura e o impacto dos fatores sociais que levam à vulnerabilidade dos usuários tem estreita relação com o uso de substâncias psicoativas. O uso de medicamentos na dependência química ainda é uma intervenção incerta, devido aos problemas físicos e mentais resultantes dessa dependência, das interações medicamentosas e com as substâncias utilizadas, além da adesão medicamentosa, levando, muitas vezes, a uma troca de "drogas" por "drogas".

Descritores: Perfil Epidemiológico; Medicamentos; Saúde Mental; Abuso de Álcool; Drogas Ilícitas; Transtornos Relacionados ao Uso de Substâncias.

Perfil sociodemográfico y farmacoterapéutico de los usuarios de Centros de Atención Psicosocial III para Alcohol y Drogas

Objetivo: caracterizar sociodemográficamente y trazar el perfil farmacoterapéutico de los usuarios de dos Centros de Atención Psicosocial III para Alcohol y Drogas, uno para niños y otro para adultos. **Metodología**: estudio documental, exploratorio y descriptivo, con enfoque cuantitativo y cualitativo, mediante el análisis de historias clínicas y entrevistas semiestructuradas. **Resultados**: se incluyeron 156 usuarios, en su mayoría del sexo masculino, solteros, negros os pardos, Escuela Primaria incompleta, desempleados y de entre 18 y 29 años. La droga más elegida fue la marihuana y el inicio del consumo fue mayoritariamente en la franja etaria de 7 a 15 años. La prescripción de medicamento como manejo de la adicción se da en el 65% de los casos; las benzodiazepinas y los antidepresivos son los más prescritos. **Conclusión**: se comprobó que el perfil sociodemográfico observado es compatible con el de la literatura y que el impacto de los factores sociales que conducen a la vulnerabilidad de los usuarios está estrechamente relacionado con el uso de sustancias psicoactivas. El uso de medicamentos en la adicción a sustancias químicas sigue siendo una intervención incierta debido a los problemas físicos y mentales derivados de dicha dependencia, de las interacciones medicamentosas y con las sustancias utilizadas, además de la adherencia a la medicación, que muchas veces deriva en un intercambio de "drogas" por "drogas".

Descriptores: Perfil Epidemiológico; Medicamentos; Salud Mental; Abuso de Alcohol; Drogas Ilícitas; Trastornos Relacionados con el Consumo de Sustancias.

Introduction

Drug use is a multifactorial phenomenon that accompanies civilizations, representing an expression of the cultural context of each society[1]. In the contemporary world, the use pattern of these substances has changed to an increasingly problematic use, which turns it into an important Public Health issue. According to the World Health Organization, nearly 270 million people or 5.5% of the global population aged from 15 to 64 years old used psychoactive drugs in the year prior to the research and it is estimated that nearly 35 million people are affected by harmful drug use patterns or drug addiction[2]. In Brazil, according to the Informatics Department of the Unified Health System (DATASUS), in 2019, 78,054 hospitalizations were recorded due to disorders caused by the use of psychoactive substances[3].

As a care strategy for people with problematic use of alcohol and other drugs, the Psychosocial Care Network was established through Ordinance 3,088 of 2011[4]. Thus, the Psychosocial Care Centers for Alcohol and Other Drugs (*Centros de Atenção Psicossocial para Álcool e outras Drogas*, CAPS ADs) are care devices that prioritize humanized treatments without being reclusive, working according to the logic not only of Harm Reduction[5], but they should also employ treatment strategies with abstinence as objective, the main change introduced by Resolution 32 of December 2017, which establishes the new National Mental Health Policy. For this, the teams must resort to different action strategies to promote abstinence, social support, health promotion and a reduction of social and health risks[6]. Thus, the main focus of CAPS ADs is to be a space for Health Prevention and Promotion, acting in the process of rebuilding the users' ties with the community, family and work, as these relationships are broken or weakened due to extended use and abuse of psychoactive substances[7].

In most cases, during the care process, there is drug prescription to mitigate symptoms resulting from use and to alleviate withdrawal crises. However, the clinical protocols that specifically deal with the management of chemically dependent patients do not guarantee the individualized care required by case, leaving it up to the prescribing professionals to observe the users' specific situations[8].

This situation must be evaluated very carefully, weighing the risks and benefits, as the medications listed in Ordinance No. 344 of the National Health Surveillance Agency require special control, precisely because of the series of side effects and adverse reactions that they can cause, such as high risk of toxicity, suicide, sexual impotence, drowsiness, weight gain and dizziness, which can also lead to chemical addiction[9]. Therefore, the role of pharmaceutical professionals in mental health is of fundamental importance, so that strategies are devised for the rational use of medications, aiming at more effective and safer therapies.

It can be seen that there are many aspects involving the care of people with problematic use of psychoactive substances. Thus, it is indispensable that mental health teams know the profile of these users, as the survey of the characteristics of the population assisted in CAPS services represents an objective and important contribution to a reflection on the distance between the guidelines that direct these devices and the everyday reality they face, thus being able to devise more targeted strategies according to this profile.

Therefore, taking into account the need to develop a new look at the treatment of users of alcohol and other drugs, where assistance in Mental Health should follow the best clinical practices and the most robust and recent scientific evidence, as governed by the new Resolution[6], this research is justified with the objective of sociodemographically characterizing and outlining the pharmacotherapeutic profile of the users of two Psychosocial Care Centers III in Alcohol and other Drugs, so as to better understand them and determine more personalized treatments.

Methodology

Study type or design

A documentary, exploratory, descriptive, and transversal cross-sectional study with a quantitative and qualitative approach, through a narrative representation of the data obtained.

Locus

Two CAPS III from Aracaju, Sergipe, Brazil, one for Children/Adolescents/Adults (*Vida*) and the other for Adults (*Primavera*).

Period

From January to December 2021.

Population

Users of the services selected at random.

Selection criteria

Being over 12 years old, being active in CAPS treatment, making or having made use of psychotropic substances and signing, together with the responsible person, when necessary, the Free and Informed Consent Form. Patients with difficulties understanding

and communicating that could impact data collection were excluded.

Study variables

Age, gender, marital status, profession, schooling, neighborhood where they live, kinship record, ethnicity, psychoactive substances of choice and use frequency, age at use initiation, origin of the referral to the service, time in treatment and diverse information on pharmacotherapy.

Instruments used to collect the information

Active medical charts available in the services and semi-structured interviews were used, containing the study variables described in the previous section. The semi-structured interview was developed by the authors, adapted from other studies, and has been applied by the group in other research papers[10-11].

Data collection

A total of 156 CAPS users were included, and only 2 (two) *Vida* CAPS charts were excluded due to lack of basic information to complete the questionnaire. Data collection was carried out by searching the medical charts of active users in the CAPS and through a semi-structured interview, already mentioned, in order to complete or clarify the information. All interviews were carried out individually and in a private environment, allowing the patient to answer or not any question included in the form. This collection took place between January and December 2021 in the *Vida* and *Primavera* CAPS.

Data treatment and analysis

The data were organized in Microsoft Office Excel® 2020 using descriptive statistics, and the results are presented in the form of graphs and tables. The qualitative data obtained by Discourse Analysis were evaluated by categorizing the narratives within the context of the discussion of the data obtained.

Ethical aspects

The study was approved by the Research Ethics Committee under Certificate of Presentation of Ethical Appreciation (*Certificado de Apresentação de Apreciação* Ética, CAAE) number: 35987020.5.0000.5546. This research meets all ethical requirements regulated by Resolution 466/2012 of the National Health Council.

Results

A total of 156 users undergoing treatment in both CAPS who met the inclusion criteria were evaluated, where it was possible to verify that the vast majority

were male, aged between 18 and 24 years old, single and with Incomplete Elementary School More than half of the users were unemployed and nearly 40% stated being be brown- or black-skinned (Table 1).

Table 1 – Sociodemographic characteristics of the users treated in the CAPS AD III for Children/Adolescents/Adults and for Adults (n=156). Aracaju, SE, Brazil, 2021

Sociodemographic characteristics	n	%
Gender		
Male	118	75
Female	34	22
Transgender	4	3
Age group		
12-17 years old	38	24
18-24 years old	57	37
25-29 years old	46	29
30-60 years old	14	9
Marital Status		
Single	138	88
Married	17	11
Widowed	1	1
Schooling		
Illiterate	1	1
Incomplete Elementary School	106	68
Complete Elementary School	15	10
Incomplete High School	11	8
Complete High School	10	7
Complete Higher Education	1	1
Not reported	12	9
Occupation		
Unemployed	84	53
Autonomous	38	24
Student	22	14
Social Assistance beneficiary	10	7
Formal work	2	2
Kinship		
Mother/Father	104	67
Mother	35	22
Not reported	17	11
Ethnicity		
Brown	39	25
Black	22	14
White	3	2
Asian	2	1
Not reported	90	57
Origin of the referral		
Spontaneous demand	52	33
Mental Emergency service	29	18
Psychosocial Care Network	18	12
Social Assistance Network	18	12
Tutelary Council	10	7
Primary Care	6	5
Legal System	23	15
Time in treatment		
Less than a year	73	46
More than a year	64	41
More than two years	9	6
More than three years	4	3
More than four years	2	1

As for the origin of the referrals to the service, spontaneous demand represented the highest percentage, followed by referrals from Mental

Emergency services, the Tutelary Council, the Legal System, the Social Assistance Network and the Psychosocial Care Network itself. In turn, regarding the time in treatment of these users, most of them had been at the service for one year or less and only 1% had been in the care process for more than four years (Table 1).

The distribution of users by health regions is shown in Figure 1. Region 1 includes the neighborhoods in the city's expansion zone, such as Mosqueiro and surroundings, in addition to the neighborhoods of Aeroporto, Atalaia and Farolândia. Regions 2, 6, 7 and 8 comprise the neighborhoods on the outskirts of the

Sergipe capital such as Santa Maria, São Conrado, Lamarão, Soledade, Porto Dantas, Bugio, Japãozinho and Jardim Centenário, among others. Regions 4 and 5 represent the central or oldest neighborhoods of the city, such as Centro, Siqueira Campos, Getúlio Vargas, Cirurgia, etc. And finally, in Region 3, we find the neighborhoods whose populations have a higher socioeconomic index, therefore representing the neighborhoods considered noble, such as Grageru, Salgado Filho, 13 de Julho, Jardins, São José, Suíssa, etc. Most users were in regions 2 and 5. In addition to that, it is worth noting that the number of homeless users was also significant (Figure 1).
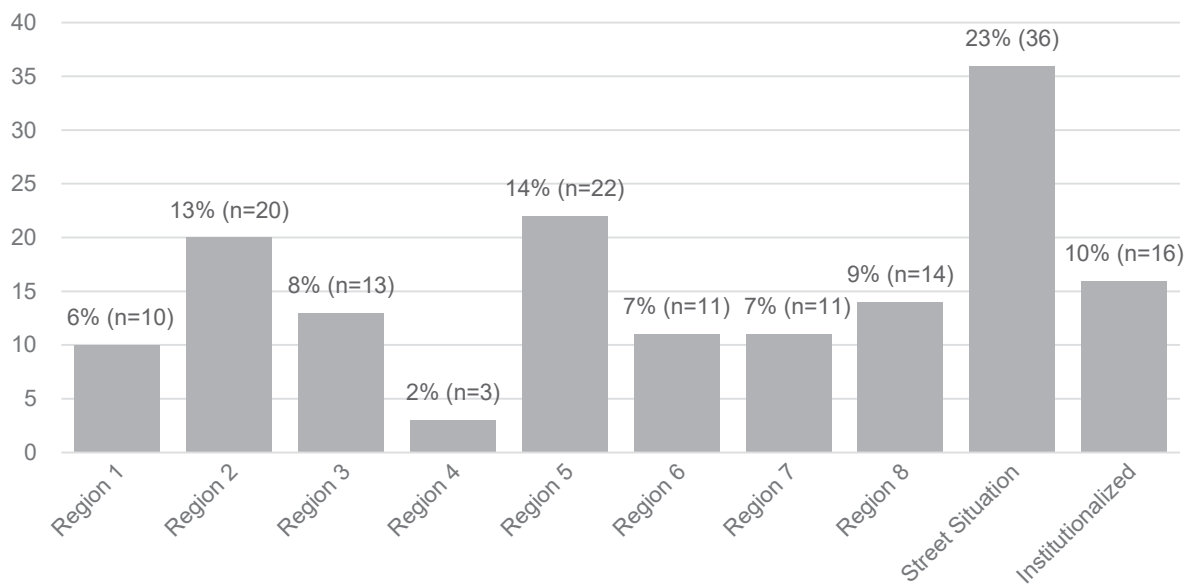

Figure 1 – Distribution of the users at the CAPS AD III for Children/Adolescents/Adults and for Adults (n=156). Aracaju, SE, Brazil, 2021

The profile of substance use by the patients, taking into account the distribution by age group at use initiation and the psychoactive substances that were used, is described in Table 2. Most of them started using drugs when they were between 13 and 15 years old, followed by those who started doing so when they were between 10 and 12 years old, and between 16 and 18 years old. In relation to the substances used, marijuana was the drug of choice for the vast majority of them, followed by cocaine, alcohol, tobacco and crack. Abuse of benzodiazepines also appeared among the substances mentioned in the medical charts (Table 2).

Regarding the number of psychotropic medications prescribed to the patients, a significant percentage of users of the services included in the research used 2 medications, followed by those who used 3 medications and those who used 4 or more medications. Only 10% used only 1 medication and a significant number of users do not use psychotropic medications (Figure 2).

Table 2 – Use profile of psychoactive substances by users assisted in the CAPS AD III for Children/Adolescents/ Adults and for Adults (n=156). Aracaju, SE, Brazil, 2021

Variables	n	%
Age group at use initiation		
7-9 years old	11	7
10-12 years old	32	20
13-15 years old	54	35
16-18 years old	15	10
19-21 years old	1	1
22-24 years old	1	1
Not reported	42	26
Psychoactive substances*		
Marihuana	133	86
Cocaine	95	55
Alcohol	91	59
Tobacco	71	46
Crack	52	33
Benzodiazepines	5	4
Ecstasy	3	2
LSD	1	1
Others	3	2

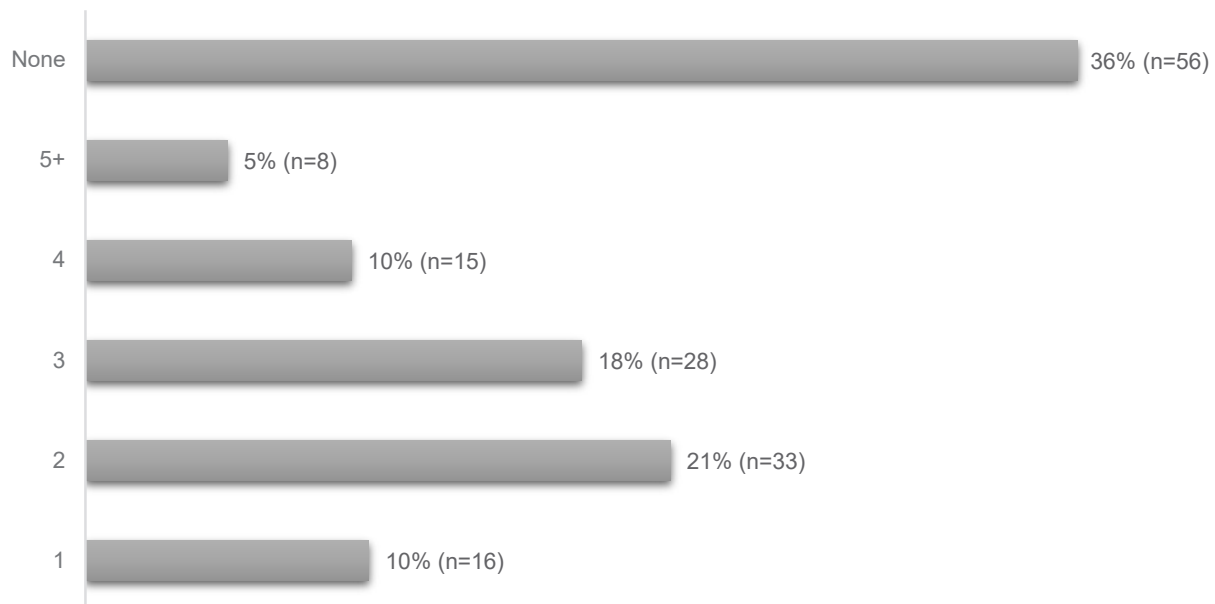*The categories are not mutually exclusive

Figure 2 – Number of medications used by users assisted in the CAPS AD III for Children/Adolescents/Adults and for Adults (n=156). Aracaju, SE, Brazil, 2021

Among the psychotropic medications most frequently prescribed to the CAPS users evaluated were benzodiazepines, anticonvulsants, and antidepressants, with diazepam, carbamazepine and sertraline as the most frequent representatives (Table 3).

Table 3 – Medications used by users assisted in the CAPS AD III for Children/Adolescents/Adults and for Adults (n=156). Aracaju, SE, Brazil, 2021

Medications	Therapeutic class	N	%
Carbamazepine	Antiepileptic	38	24
Diazepam	Benzodiazepine	36	23
Sertraline	SSRI* antidepressant	35	22
Clonazepam	Benzodiazepine	25	16
Levomepromazine	Typical antipsychotic	22	14
Promethazine	Antihistamine	20	13
Haloperidol	Typical antipsychotic	19	12
Topiramate	Anticonvulsant	15	10
Risperidone	Atypical antipsychotic	13	9
Valproic acid	Anticonvulsant	12	8
Olanzapine	Atypical antipsychotic	10	7
Chlorpromazine	Typical antipsychotic	10	7
Quetiapine	Atypical antipsychotic	8	6
Thioridazine	Atypical antipsychotic	8	6
Lithium carbonate	Mood stabilizer	6	5
Clomipramine	Tricyclic antidepressant	6	5
Fluoxetine	SSRI* antidepressant	6	5
Imipramine	Tricyclic antidepressant	5	4
Trazodone	Atypical antidepressant	4	3
Aripiprazole	Atypical antipsychotic	3	2
Biperiden	Anticholinergic	3	2
Bupropion	Atypical antidepressant	3	2
Phenobarbital	Anticonvulsant	3	2
Mirtazapine	Dual antidepressant	3	2
Pericyzine	Typical antipsychotic	3	2
Amitriptyline	Tricyclic antidepressant	1	1
None		56	36

*SSRI = Selective Serotonin Reuptake Inhibitor; †The categories are not mutually exclusive

Discussion

The characterization of the sociodemographic profile corresponding to the health service users is strategic information that can guide the care to be provided. In the CAPS AD III for Children/Adolescents (*Vida*) and for Adults (*Primavera*), which were the loci of this study, this assessment becomes even more fundamental, as the care of these patients is challenging. Therefore, knowing the profile of these users is extremely important for decisions regarding care.

Due to the pandemic, the number of appointments at the CAPS in Aracaju was reduced since the beginning of 2020. The users attended the services in the shifts in which their respective reference technicians were also there, going only once a week. In terms of individuality, the needs of each person were evaluated and the singular therapeutic projects were adapted. In mid-August, after the start of vaccination, group activities began to be resumed and, therefore, this justifies the small number of users participating in this research, mainly from the *Primavera* CAPS III, with adherence of only 15 patients.

The research showed that, among the users assisted by the CAPS AD III in Aracaju, Sergipe, the male gender represented the majority, a fact that is also found in other articles[12-17]. Gender issues that involve the mental health care scenario still carry with them social stigmatizations related to the search for treatment by women, although some studies indicate an increase in the consumption of psychoactive substances among them[17-18]. The social roles they represent end up becoming barriers to accessing treatment[18], as society's understanding of the expected behaviors for women is still based on women seen as "good and virtuous"[19],

facts that are contrary to the stigmas facing drug users, causing many women not to seek help for fear of being judged. Thus, it is important that reflections are made on the specificities of this population segment, in order to render the space more appealing and welcoming, so as to overcome these barriers and improve access to care for this group in society.

A research study comparing gender and age differences among CAPS AD users in Feira de Santana (BA), Blumenau (SC) and Teresina (PI) found that 85% are male[13], as is the case in other CAPS AD from the state of Sergipe[10-11]. The transgender population also represented a low percentage of service users. According to a number of studies, this population is nearly three times more likely to have problematic substance use compared to the cisgender population[20-21], a fact that should also foster reflections on this population's access to these spaces, conferring greater visibility to what is offered and that the peculiarities of the care to be provided to this group in society are discussed across the teams.

There was a regular distribution between age groups, with most users included in the research aged between 18 and 24 years old and the vast majority reporting single marital status, facts that are also similar to other studies[22-23]. The schooling level had its greatest representation in Incomplete Elementary School, with more than half of users at this level. The low schooling level of the population under study is similar to the results available in the literature[10-11,24-25], suggesting a relationship between school dropout and drug use. In turn, this can be due not only to drug use but also to the consequences that such consumption entails for individuals, such as cognitive and general health problems[24]. Most of the users were unemployed, followed by informal work, which is also similar to what is found in other research studies[10-11,22-23]. Although unemployment is a structural and situational issue in the reality of this population group, it becomes more significant because it represents a vulnerable and marginalized segment within the collective of socially excluded people[23].

One-fourth of the users did not have any paternal representation in their documents. This data reflects the national scenario, where approximately 6 million Brazilians do not have the father's name on their birth certificate[26]. If the effective paternal presence in the lives of these users is evaluated, this number could be even higher. The impacts of parental abandonment are negative and are related to several mental health issues throughout life, as they influence psychological development in children and adolescents[27].

Regarding ethnicity, black- and brown-skinned individuals accounted for 44% of the users, a result that is similar to the one already reported in other research studies[10-11,28-29]. Even so, the number of medical chart that fail to describe this variable was significant, where more than half do not report this. Use of this variable is still low, even though it is an important marker of a social nature. This is in line with the way in which racial inequalities in Brazil are treated as nonexistent by society, which reinforces inequalities[29].

The municipality of Aracaju is divided into 8 health regions, with most of the users living in regions 2 and 5, which are socioeconomically less favored areas. This sizing is fundamental because it makes it possible to assess the access and coverage levels of the health services and of the various social policies. It is important to highlight that social inequalities are directly related to health inequalities[30]. Thus, mental health actions need to be closer to these regions, maintaining a direct relationship with the Basic Health Units in the territories, carrying out the case matrix support and taking training sessions to the teams in these spaces as a way of preventing problems in relation to the use of psychoactive substances. A significant percentage of the users lived in the streets at data collection, with substance use seen both as a cause and a consequence of this situation of vulnerability[31].

Arriving at the service due to spontaneous demand and to referrals from Mental Emergency services stood out. It is interesting to note that there is an articulation network among the users themselves who end up talking about the service in their social relationships, encouraging others to also seek help. However, the fact that many of these users arrive referred by the Mental Emergency services reinforces a flawed aspect in the Health Articulation Network, where prevention of these diseases should be a priority. Primary Care only accounted for 4% of the referrals to the Psychosocial Care Network, showing that there is no effective articulation regarding care with the use of psychoactive substances. Most of the users had been in the service for two years or less, a characteristic that can be related to the evasion rate and to prolonged non-adherence to the treatment, especially among children and adolescents[32].

More than half of the users (62%) reported having started using psychoactive substances before the age of 15. It is important to reinforce that adolescence is a time of life that involves risks, fears, maturation and emotional instabilities, leaving them more vulnerable to unplanned pregnancies, sexually transmitted infections and drug experimentation, among others[33]. In addition, the earlier drug use begins, the greater the risk of psychological, physical and social harms to human development. The very neurological/body/behavioral remodeling that occurs in the second decade of life is the driving event of this phase of building strategies for

decision-making, which will involve the adoption of new social patterns of behavior[34].

In relation to the use of psychoactive substances (Table 2), marijuana appeared as the first-choice drug, followed by alcohol, cocaine, tobacco and crack. Some users said that they prefer cocaine, but choose crack because it is cheaper and easier to access. The vast majority used multiple substances, a result similar to the one found in other studies already conducted[22-23]. A study also carried out in a CAPS AD for Adults from a city in the inland of the same state, outlined a linear correlation between age and number of psychoactive substances used. The younger the individual, the greater the number of different substances used, often concomitantly. On the other hand, as age advances, it seems that the users select one or two preferred drugs for frequent use[10].

Problematic use of psychoactive substances leads to several biopsychosocial harms, both affecting development and strongly impacting the social relationships of these individuals, in addition to being related to other psychiatric situations such as anxiety, depression and suicide attempts, resulting from this problematic use[35]. The use profile was quite varied. There are those who used drugs every day and those who did so once a week. Specifically in relation to the *Primavera* CAPS users, 26% used drugs only once a week, another 26% did so every day.

Drug therapy is one of the main treatment modalities offered to people with problematic substance use. In the study in question, 64% of the users resorted medications as part of their therapy and, of these, most used 3 or more medications (32%), thus characterizing psychiatric polypharmacy. Concomitant use of psychotropic medications is subjected to a higher rate of drug interactions, which can be both beneficial and harmful, exacerbating the adverse reactions resulting from using these medications[36]. In addition to these drug interactions, we have drug-drug or drug-alcohol interactions, which alter the pharmacokinetics and pharmacodynamics of these medications, and may even increase the toxicity and overdose risks.

Drug prescription in a CAPS AD is complex. In addition to the abusive use of psychoactive substances, there is the social and life context of each user, which exerts direct influences on their relationship with drug treatment. On a daily basis, CAPS professionals deal with people who are homeless, lose medications, use them as a bargaining chip or misuse them, especially with concomitant consumption of alcohol and other substances.

The therapeutic classes most frequently used by the users were benzodiazepines, antiepileptics and antidepressants, a fact that is similar to data found in other studies[9,37]. Such classes of medications are the first choice for the treatment of chemical addiction, which aims at controlling the withdrawal syndrome and acquired mental disorders. On the other hand, it is important to highlight that pharmacological treatment protocols for illicit substance users are still scarce due to their complexity[38-39] and, in turn, do not have any therapeutic approach that truly solves their symptoms (restlessness, anxiety, panic, insomnia and depression).

When the patients were asked about the need to use benzodiazepines, the answer was always unanimous ...*I can't sleep without it* (João, Pedro, Antônio, Marcia and others). Despite being a safe class of medication, benzodiazepines have an increased absorption rate and Central Nervous System depressant activity in the presence of alcohol. Therefore, the interaction between alcohol and benzodiazepines is considered serious since, by reducing the Central Nervous System activity, there may be an alteration in the cardiovascular and respiratory functions, which can lead to coma and even death[40].

Therefore, it is worth reflecting on the pharmacological interventions for this population group, as they can be used to reduce the intensity of the withdrawal syndrome; however, many of these therapeutic "drugs", such as antidepressant and antipsychotic agents, can also cause dependence and generate withdrawal symptoms when treatment is interrupted.

Therefore, treatment based on excessive medicalization to the detriment of comprehensive care, care humanization and absence of co-accountability of the subjects involved in the process, also contributes to the failure of therapeutic proposals[41]. As a result, medication use must be carefully evaluated and given adequate support by health professionals, especially pharmacists, who are of fundamental importance in guiding correct medication use by the users and their families, with the objective of minimizing medication errors, withdrawal crises or rebound effects caused by abrupt drug cessation, incorrect doses or overdoses[9,42].

Carbamazepine was the second most prescribed substance. In the interviews, most of the users said that carbamazepine helps them control the desire to use psychoactive substances and that, if they do not take it, their use frequency of both alcohol and other drugs is increased. According to the literature, anticonvulsants have less interaction with alcohol when compared to benzodiazepines, in addition to presenting a low probability of adverse effects, thus increasing users' adherence. The authors also asserted that anticonvulsants act similarly to alcohol, increasing gabaergic neurotransmission and inhibiting excitatory glutamate receptors, thus being a good choice[43].

Sertraline appears next as the most prescribed medication. The users asserted that this medication helps decrease bad thoughts, controls anxiety and

reduces depression. A study shows that sertraline can be effective for both cocaine and alcohol relapse prevention, especially with older people[44]. In addition to sertraline, another two antidepressants were also included in some prescriptions, such as fluoxetine and amitriptyline.

Depressive and anxiety disorders, as well as personality disorders, are psychiatric comorbidities commonly found in individuals who make problematic use of alcohol and other drugs. A number of research studies indicate that chemical dependents are more likely to acquire a psychiatric disorder when compared to people who do not use psychoactive substances, in addition to the high prevalence of suicide risk[45].

Levomepromazine was the fourth most prescribed medication for the CAPS patients. The antipsychotic is resorted to by users with a history of hearing voices and seeing figures, and they asserted that, in addition to improving the aforementioned symptoms, the medication helps them sleep. However, the drug is contraindicated concomitantly with alcohol use, as the CNS depressant activity and the sedative effects are accentuated[46].

Promethazine was also included in 20 prescriptions, in these cases used to neutralize the extrapyramidal reactions of the antipsychotics[47]. There is an increased chance of adverse reactions when antipsychotics are used in association with alcohol, with the possibility of changes in the pharmacokinetics of the medication, such as increased bioavailability and even increased alcohol-induced toxic effects of the drug[48].

Some users had different dispensing schemes due to their life context and the relationship between the medication and the illicit drug. At the end of the consultation with the psychiatrist, the user stops at the pharmacy where, through the *IDS SAÚDE* system [Management System for Health Departments, Emergency Care Units (*Unidades de Pronto Atendimento*, UPAs)], Clinical Analysis Laboratories, Public Pharmacies and Intermunicipal Health Consortia), the medication is dispensed for two months. However, users take with them a necessary amount for only seven, fifteen or more days, depending on each person's needs and, as it ends, they will fetch more tablets from the CAPS Pharmacy service.

This is a therapeutic strategy for some service users who live in the streets and lose medications, which they use improperly to enhance the effect of illicit drugs or alcohol, for example, or as a bargaining chip to obtain drugs from dealers. However, this fractionated dispensing is also a strategy for those who need more constant monitoring. When the users were asked about the need for the medication, they assessed that they actually needed it. Most of them related the medication mainly to sleep, and some others spoke about controlling drug use,

stating that the medication assists in reducing harms and maintaining abstinence.

They also reported having knowledge about the medications they use. Some patients did not know the name of all the medications prescribed, but they knew why they used them. When asked about having enough information about the pharmacotherapy treatment, one female user answered ...*I have, I know everything I take. Sertraline to calm my anxiety; carbamazepine to decrease drug cravings; amitriptyline numbs my craving and compulsion for crack and diazepam helps me calm down and sleep. They help me a lot and I go up to a month without using drugs* (Maria).

Interrupting treatment is part of the lives of all interviewees ...*When I'm in a crazy life, using drugs or drinking cachaça nonstop, I don't even know where the medicine is. Then I stop, I don't take it for a week and sometimes even longer, it depends on how I am* (José), replied one of the interviewees. In addition, the time the patients stayed without taking the medications varied from three to fifteen days. When asked about their health status after using medications, everyone was unanimous ...*It's good, they are important for me* (Carlos, Sandro, Luiz); ...*70% is the medicine, 30% has to be my self-control* (André, Felipe, Gustavo); ...*I get slower, I don't work the same way* (Rodrigo); punctual answers, without much argument or explanation.

The multiprofessional CAPS team members, especially the reference technician, are very important in the entire user care process, as well as in medication use. They are able to perceive many situations and, in the team meeting and the case discussions, many strategies are devised to improve the quality of life and treatment of those assisted by the CAPS.

In relation to the limiting aspects of this study, the data collected from diverse information produced by the service itself and recorded in the medical charts had a high rate of unreported data in the medical records of the CAPS AD users. Incorrect information recording or its absence hinder epidemiological analyses and exerts impacts, in a certain way, on the viability of reliable sources for scientific research studies. The impact of the COVID-19 pandemic also exerted a negative influence on the number of patients who participated in the study, as the activities of the services were limited.

Conclusion

It was possible to sociodemographically characterize and outline the pharmacotherapeutic profile of the users of two Psychosocial Care Centers for Alcohol and Other Drugs in Aracaju. The analysis of the sociodemographic profile is compatible with that of

other studies and this assessment shows that people with problematic substance use experience different situations of social vulnerabilities. Based on this sample, it is possible to outline a prescription pattern for the CAPS AD users, with the association of benzodiazepines, carbamazepine, sertraline and levomepromazine as predominant. In fact, these medications are used in the treatment of patients with problematic use of alcohol and other drugs; however, this should be done after a period of detoxification from drugs of abuse and alcohol. On the other hand, many users under the influence of psychoactive substances are welcomed in the night shelter, as soon as they undergo medical evaluation and are medicated.

In addition to that, medication use in chemical addiction is still an intervention that raises important questions due to the problem related to drug addiction, in addition to the absence of realistic evidence that effectively proves the efficacy of medication use in multiple drug dependence. A positive point in the CAPS AD is that the patients always undergo medical re-evaluations if they are in the night shelter weekly, if not, every two months. Through the interview, it was possible to notice that the users had certain autonomy in the treatment and were able to identify the reason for each medication they take and which factors influence them to interrupt the treatment. Generally, when they are abusively using psychoactive substances, they stop the medication.

The presence of a pharmacist along with the multiprofessional team is extremely important because, as the professional is in the CAPS every day and full-time, he/she is able to identify possible side effects, adverse or toxic reactions related to the medications and illicit drugs, clarify patients' doubts, discuss with the psychiatrist the best course of action for the treatment of each user and assist in the process of adherence to pharmacotherapy. In addition to that, there are many spaces in the CAPS where pharmacists need to be present, such as in field activities, assembling conversation circles with other professionals, in the waiting rooms and developing activities inherent to the profession such as a pharmaceutical office, pharmacotherapy review and health education, among others. However, for this to happen, more pharmaceutical professionals need to be hired, as both CAPS included in this research only have one pharmacist on a shift. Investing in pharmaceutical professionals is a synonym to directly investing in the users' health and in rational medication use.

Therefore, it becomes necessary to carry out more studies that address these variables in more depth and their impacts and relationships with the use of psychoactive substances, as well as to evaluate the benefits *versus* the harms of resorting to pharmacological interventions in this profile of patients.

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References

1. Mariano IM, Oliveira CC, Babachinas IS. Perceptions of factors that influence the use of psychoactive substances in a Psychosocial Attention Center. Cad Cult Cienc [Internet]. 2020 Dec;18(2):62-72. [cited 2022 Sep 30]. Available from: http://periodicos.urca.br/ojs/index.php/cadernos/article/view/1793

2. World Health Organization. Health Topics, Drugs Psychoactive [Internet]. Viena: WHO; 2022 [cited 2022 Aug 30]. Available from: https://www.who.int/health-topics/drugs-psychoactive#tab=tab_2

3. Ministério da Saúde (BR). Departamento de Informática do Sistema Único de Saúde – DATASUS. Informações epidemiológicas e morbidade. Morbidade hospitalar do SUS por local de internação – Brasil 2019. Internações por ano devido transtornos mentais e comportamentais devido ao uso de álcool e de outras substâncias psicoativas. Brasília: MS; 2020 [cited 2022 Aug 30]. Available from: http://tabnet.datasus.gov.br/cgi/tabcgi.exe?sih/cnv/niuf.def

4. Ministério da Saúde (BR). Portaria 3.088 de 23 de dezembro, institui a Rede de Atenção Psicossocial para pessoas com sofrimento ou transtorno mental e com necessidades decorrentes do uso de crack, álcool e outras drogas, no âmbito do Sistema Único de Saúde (SUS) [Internet]. Diário Oficial da União, 31 nov. 2011. Brasília: MS; 2011 [cited 2022 Aug 30]. Available from: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt3088_23_12_2011_rep.html

5. Ministério da Saúde (BR). Portaria 1.028 de julho de 2005. Determina que as ações que visem a redução de danos sociais e à saúde, decorrentes do uso de produtos, substâncias ou drogas que causem dependência sejam reguladas por esta portaria [Internet]. Diário Oficial da União, jul. 2005 [cited 2022 Aug 30]. Available from: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2005/prt1028_01_07_2005.html

6. Ministério da Saúde (BR). Resolução 32, de dezembro de 2017. Estabelece as Diretrizes para o Fortalecimento da Rede de Atenção Psicossocial (RAPS) [Internet]. Diário Oficial da União, 22 dez. 2017 [cited 2023 Feb 10]. Available from: https://bvsms.saude.gov.br/bvs/saudelegis/cit/2017/res0032_22_12_2017.html

7. Fátima GC, Torres S, Ecker DDI. Prevenção e promoção de saúde no CAPS AD através de oficinas de psicoeducação.

Rev Eletr Cient UERGS. 2019 Mar;5(2):191-7. https://doi.org/10.21674/2448-0479.52.191-197

8. Meneses-Gaya C, Crippa JA, Hallak JE, Miguel AQ, Laranjeira R, Bressan RA, et al. Cannabidiol for the treatment of crack-cocaine craving: an exploratory double-blind study. Braz J Psychiatry. 2021 Sep-Oct;43(5):467-76. https://doi.org/10.1590/1516-4446-2020-1416

9. Ministério da Saúde (BR). Portaria 344 de maio de 1998. Aprova o Regulamento Técnico sobre substâncias e medicamentos sujeitos a controle especial [Internet]. Diário Oficial da União, 1998 [cited 2022 Aug 30]. Available from: https://bvsms.saude.gov.br/bvs/saudelegis/svs/1998/prt0344_12_05_1998_rep.html#:~:text=PORTARIA%20N%C2%BA%20344%2C%20DE%2012,medicamentos%20sujeitos%20a%20controle%20especial

10. Di Pietro G, Silva RMR, Santos JC, Santana TS, Rezende BAM, Santana APA, et al. Features and factors associated with drinking problems or illegal drugs use: a cross sectional cohort study with patients of a Psychosocial Care Service. Appl Clin Res Clin Trials Reg Affairs. 2016;3(3):192-200. https://doi.org/10.2174/2213476X03666161102095255

11. Santos JS, Oliveira MA, Brito GC, Rocha CE, Di Pietro G. Pharmaceutical intervention and medication adherence in a psychosocial care center for alcohol and other drugs. Rev Conexão Cienc. 2021 Oct;16(2):46-61. https://doi.org/10.24862/cco.v16i2.1350

12. Sá Ferreira A, Sodré MLG, Ferreira MCFC, Marinho SF, Fernandes MA, Rodrigues MS, et al. Pharmacotherapeutic profile at a Center for Psychosocial Care Alcohol and Drugs (CAPS-ad) of Northeast Brazil. Rev Cienc Saúde. 2020;10(3):56-63. https://doi.org/10.21876/rcshci.v10i3.905

13. Lopes MA, Sprícigo JS, Mitjavila MR, Schneider DR, Abreu D. Differences in age and gender among CAPS ad users and the implications in the health care network. SMAD, Rev Eletrônica Saúde Mental Álcool Drog. 2018 Jul-Sep;14(3):159-67. https://doi.org/10.11606/issn.1806-6976.smad.2018.000412

14. Leandro MM, Rosas MA, Nóbrega KBG, Albuquerque-Maranhão LC, Epalanga AKPS, Facundes VLD. Characteristics of drug use and abuse of the population under treatment at a psychosocial care center for young child in the city of Recife. Braz J Hea Rev. 2020;3(5):12294-314. https://doi.org/10.34119/bjhrv3n5-076

15. Fernandez-Montalvo J, Lopez-Goñi JJ, Azanza P, Cacho R. Gender differences in drug-addicted patients in a clinical treatment center of Spain. Am J Addict. 2014;23(4):399-406. https://doi.org/10.1111/j.1521-0391.2013.12117.x

16. United Nations Office on Drugs and Crime. World Drug Report (2016) [Internet]. Viena; UNODOC; 2016 [cited 2022 Aug 30]. Available from: https://www.unodc.org/wdr2016/

17. Vargas DD, Ponce TD, Ramírez EGL, Pereira CF, Nóbrega MDPSDS. Women receiving specialized treatment for psychoactive substance use: a cohort study. Rev Esc Enferm USP. 2018;52:e03368. https://doi.org/10.1590/S1980-220X2017042403368

18. Santos EIC, Souza Andrade D, Carvalho KS, Alves VS. Programmatic vulnerability of women assisted in a Psychosocial Care Center for Alcohol and Other Drugs. Braz J Health Rev. 2020 Set-Out;3(5):12345-61. https://doi.org/10.34119/bjhrv3n5-079

19. Medeiros KT, Maciel SC, Sousa PFD. Women in the Context of the Drugs: Social Representations of Users in Treatment. Paidéia. 2017;27(Suppl 1):439-47. https://doi.org/10.1590/1982-432727s1201709

20. Kerr-Corrêa F, Kerr LRFS. Hazardous alcohol use among transwomen in a Brazilian city. Cad Saúde Pública. 2017;33(3):e00008815. https://doi.org/10.1590/0102-311X00008815

21. Castoldi L, Berengan MM, Both NS, Fortes VS, Pinheiro TV. HIV post-exposure prophylaxis in vulnerable populations: a retrospective longitudinal study in a public health outpatient clinic in Rio Grande do Sul, Brazil, 2015-2018. Epidemiol Serv Saúde. 2021;30(2):e2020646. https://doi.org/10.1590/S1679-49742021000200017

22. Oliveira VC, Capistrano FC, Ferreira ACZ, Kalinke LP, Felix JVC, Maftum MA. Sociodemographic and clinical profile of people assisted in a CAPS ad in the south of Brazil. Rev Baiana Enferm. 2017 Jan;31(1):e16350. https://doi.org/10.18471/rbe.v31i1.16350

23. Trevisan ER, Castro SDS. Psychosocial Care Centers - alcohol and drugs: users' profile. Saúde Debate. 2019;43(121):450-63. https://doi.org/10.1590/0103-1104201912113

24. Araujo NB, Marcon SR, Silva NG. Clinical and sociodemographic profile of adolescents who stayed and did not stay in treatment at CAPSad Cuiabá/MT. J Bras Psiquiatr. 2012;61(4):227-34. https://doi.org/10.1590/S0047-20852012000400006

25. Santana RT, Miralles NCW, Alves JF, Santos VA, Vinholes U, Silveira DS. Profile of users of a Psychosocial Care Center. Braz J Health Rev. 2020;3(1):1343-57. https://doi.org/10.34119/bjhrv3n1-103

26. Nascimento GPD. Em nome do Pai: Memórias do projeto em Direitos Humanos "Nome Legal" do Ministério Público da Paraíba (2011–2015) [Thesis]. Universidade Federal da Paraíba: Centro de Ciências Humanas, Letras e Artes; 2018. [cited 2022 Aug 30]. 150 p. Available from: https://repositorio.ufpb.br/jspui/handle/123456789/14846?locale=pt_BR

27. Barbosa CW, Zandonadi AC. Parental alienation and its impacts on psychological development of children and adolescents. Rev Farol [Internet]. 2018 [cited 2022

Aug 30];7(7):58-72. Available from: https://pt.scribd.com/document/445074346/A-alienacao-parental-e-seus-impactos-no-desenvolvimento-psicologico-da-crianca-e-do-adolescente

28. Almeida RAD, Anjos UUD, Vianna RPDT, Pequeno GA. Profile of users of psychoactive substances in João Pessoa. Saúde Debate. 2014;38(102):526-38. https://doi.org/10.5935/0103-1104.20140049

29. Silva NG, Barros S, Azevedo FCD, Batista LE, Policarpo VC. The race/color variable in studies of characterization of the users of Psychosocial Care Centers'. Saúde Soc. 2017;26(1):100-14. https://doi.org/10.1590/S0104-12902017164968

30. Carvalho MES, Mendonça FA. Intra-urban inequalities, and socio-environmental conditions: elements for the delimitation of Leptospirosis risk areas. Ateliê Geográfico. 2018;12(1):25-50. https://doi.org/10.5216/ag.v12i1.45132

31. Mendes KT, Ronzani TM, Paiva FSD. Homeless population, vulnerabilities and drugs: a systematic review. Psicol Soc. 2019;31:1-15. https://doi.org/10.1590/1807-0310/2019v31169056

32. Oliveira MF, Souza AR, Moura ADA, Feitoza AR, Pontes RS. Perception of professionals about a Psychosocial Care Center – alcohol and drugs (CAPS-AD). Rev Tendên Enferm Profis [Internet]. 2017 [cited 2022 Sep 30];9(3):2252-6. Available from: https://www.sumarios.org/artigo/percep%C3%A7%C3%A3o-dos-profissionais-sobre-um-centro-de-aten%C3%A7%C3%A3o-psicossocial-%E2%80%93-%C3%A1lcool-e-drogas-caps-ad

33. Jesus FB. Lima FCA, Martins CBG, Matos KF, Souza SPS. Vulnerability in adolescence: the experience and expression of the adolescent. Rev Gaúcha Enferm. 2011;32(2):359-67. https://doi.org/10.1590/S1983-14472011000200021

34. Rosa SH, Venturi AFA, Antunes JMF Neto. Adolescence and psychoactive substances use disorder. Prospectus. 2020;2(2):309-24. https://doi.org/10.5281/zenodo.5565214

35. Ribeiro JP, Gomes GC, Vicente BG, Soares MC, Braga LR, Santos EOD. Profile of adolescent user of crack in treatment in the psychosocial care center alcohol and drugs. Rev Pesq Cuid Fundam. 2021;13:41-9. https://doi.org/10.9789/2175-5361.rpcfo.v13.7159

36. Bosetto A, Silva CM, Peder LD. Drug interactions between psychoactive drugs and the relationship with prescribers and users profile. J Health NPEPS. 2020;5(1):187-206. https://doi.org/10.30681/252610104104

37. Silva SN, Lima MG, Ruas CM. Drug use in Psychosocial Care Centers: analysis of prescriptions and the profile of users in different modalities of the service. Ciênc Saúde Colet. 2020;25(7):2871-82. https://doi.org/10.1590/1413-81232020257.23102018

38. Montemitro C, Angebrandt A, Wang TY, Pettorruso M, Abulseoud OA. Mechanistic insights into the efficacy of memantine in treating certain drug addictions. Prog Neuropsychopharmacol Biol Psychiatry. 2021;111:e110409. https://doi.org/10.1016/j.pnpbp.2021.110409

39. Knevitz MF, Buccini DF. Psychopharmacy in the treatment of chemical dependence: a review. Rev Interdisc Estud Saúde. 2018;7(1):205-19. https://doi.org/10.33362/ries.v7i1.1124

40. Freire MBO, Silva BGC, Bertoldi AD, Fontanella AT, Mengue SS, Ramos LR, et al. Benzodiazepines utilization in Brazilian older adults: a population-based study. Rev Saúde Pública. 2022;56(10):1-13. https://doi.org/10.11606/s1518-8787.2022056003740

41. Oliveira LVE, Coelho AA, Salvador PTCDO, Freitas CHSDM. Visible and invisible walls: reflections on the itinerary of drug users in Brazil. Physis. 2019;29(04):e290411. https://doi.org/10.1590/S0103-73312019290411

42. Andrade JM, Souza FAF, Duarte JF, Leite PIP, Medeiros PMC. Evalution of the Adhesion of the Treatment with Antidepressives in Patients of a Public Pharmacy in the Interior of Ceará. Id On Line Rev Psicol [Internet]. 2018 [cited 2022 Aug 30];12(42):203-12. Available from: https://idonline.emnuvens.com.br/id/article/view/1306/0#:~:text=O%20estudo%20obteve%2096%25%20de,e%20os%20efeitos%20dos%20f%C3%A1rmacos

43. Castro LA, Couzi C. Potential use of the anticonvulsants in the outpatient treatment of alcohol dependence. J Bras Psiquiatr. 2006;55(3):212-7. https://doi.org/10.1590/S0047-20852006000300007

44. Elizabeth A, Schlenk EA, Bernardo LM, Organist LA, Klem ML, Engberg S. Optimizing medication adherence in older patients: a systematic review. J Clin Outcomes Manag [Internet]. 2008 [cited 2022 Aug 30];15(12):595-606. Available from: https://www.researchgate.net/profile/SandraEngberg/publication/24410351_Optimizing_Medication_Adherence_in_Older_Patients_A_Systematic_Review/links/0c96052409ac449e76000000/Optimizing-Medication-Adherence-in-Older-Patients-A-Systematic-Review.pdf

45. Baltar JGC, Iglesias A, Borlot EB. Comorbidity between the use of alcohol and other substances, psychiatric disorders, and suicide behavior: a review. Rev Psicol Saúde. 2020;12(2):3-18. https://doi.org/10.20435/pssa.v0i0.676

46. Ministério da Saúde (BR), Secretaria Executiva, Coordenação Nacional de DST/Aids. A Política do Ministério da Saúde para atenção integral a usuários de álcool e outras drogas [Internet]. Brasília: Ministério da Saúde; 2003 [cited 2022 Aug 30]. 60 p. Available from:

https://bvsms.saude.gov.br/bvs/publicacoes/politica_atencao_alcool_drogas.pdf

47. Barboza PS, Silva DA. Medicamentos antidepressivos e antipsicóticos prescritos no Centro de Atenção Psicossocial (CAPS) do município de Porciúncula – RJ. Acta Biom Brasiliensia [Internet]. 2012 [cited 2022 Aug 30];3(1):85-97. Available from: https://www.actabiomedica.com.br/index.php/acta/article/view/39

48. Silva AO, Barbosa AA, Cunha APS, Rolim IAA, Santos RF, Borges JMP, et al. Potential interactions between drugs and alcohol-medications in alcoholic patients treated by a Psychosocial Alcohol and Drug Care Center. Res Soc Dev. 2021;10(9):e20610917697. https://doi.org/10.33448/rsd-v10i9.17697

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