Pharmacotherapy used for alcohol and cocaine use disorders in a CAPS-AD of Minas Gerais

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Substance use disorder is one of the major social and public health problems in the world. The present study analyzed the pharmacoepidemiological profile of patients treated at the Psychosocial Treatment Center for Alcohol and Substance Use Disorders (CAPS-AD) for treatment of alcohol use disorders (AUD), cocaine use disorders (CUD) and concomitant alcohol and cocaine use disorders (A-CUD) in the city of Betim-MG. The study used quantitative and descriptive data and was based on the evaluation of medical records of patients attended from January to December 2016. After analyzing 295 medical records, the majority of study participants were male (83.7 %) with an average age of 46.26 for AUD, 28.88 for CUD and 34.29 for A-CUD. The most prescribed drugs for AUD were diazepam (54.1 %), thiamine (37 %), complex B vitamins (29.5 %), and disulfiram (2.7 %); for CUD, diazepam (26.9 %) and haloperidol (23.1 %). It should be noticed that although contraindicated by the guidelines, chlorpromazine (42.3 %, 25.3 %, 20.3 %) was prescribed for CUD, AUD, and A-CUD respectively. Knowing the pharmacoepidemiological profile of CAPS-AD patients is extremely important for making decisions regarding which medicines to make available to the population.

Keywords: Cocaine. Alcoholism. Substance-Related Disorders. Benzodiazepines. Disulfiram.

INTRODUCTION

Substance use disorder is one of the main social and public health problems in the world, since it causes potential physical, psychological, and social harm to the user and to the security of society, mainly due to its association with violence, criminality and marginality (Foppe, Hammond-Weinberger, Subedi, 2018; Guimarães *et al.*, 2018; Singulane, Silva, Sartes, 2016).

The use of illicit substances has been frequent by society. It was found that approximately 271 million people aged 15-64 years used these types of substances at least once in 2017 (UNODC, 2019).

According to the II National Survey of Alcohol and Drugs - LENAD, conducted by the National Institute of Science and Technology for Public Policies of Alcohol and Other Drugs (INPAD), in 2012 (Laranjeira *et al.*, 2014), 62 % of men and 38 % of women of the population (over 18 years of age) had consumed alcohol in the previous 12 months. In the same year, 1.7 % of the Brazilian adult population had used cocaine in the same period and 0.7 % used crack (Laranjeira *et al.*, 2014).

In 2015, in the III National Survey on Drug Use of the Brazilian Population, carried out by the Oswaldo Cruz Foundation (FIOCRUZ), 66.4 % of the adult population had used alcohol at least once in their lives, 7.7 % marijuana and 4.0 % cocaine and its derivatives (Bastos *et al.*, 2017).

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The medications recommended to treat alcohol use disorders (AUD) in Brazil are the same as those approved by the Food and Drug Administration (FDA): disulfiram - inhibits acetaldehyde dehydrogenase; naltrexone - blocks µ-opioid receptors; and acamprosate - blocks N-methyl-D aspartate glutaminergic receptors (Williams, 2005; Bogenschutz et al., 2016; Walker et al., 2019; Jorgensen, Pedersen, Tonnesen, 2011; Campana et al., 2012). These medications are recommended to control the desire and / or urge to drink, in addition to psychosocial monitoring (Campana et al., 2012).

The use of vitamins, especially those of complex B, and benzodiazepines, helps in the symptoms of intoxication as well as in associated disorders such as anxiety (Thomaz et al., 2014; Bogenschutz et al., 2016).

Although there is no specific medication for the treatment of cocaine use disorders (CUD), medications such as benzodiazepines and antipsychotics can assist in the treatment of the signs and symptoms of intoxication (Pulcherio et al., 2010; Grossi, Oliveira, 2013).

The Psychosocial Treatment Center for Alcohol and Substance Use Disorders (CAPS-AD) is a public outpatient treatment unit for disorders due to the use of psychoactive substances (alcohol and other drugs) (Brazil, 2015a).

Studies show that the majority of patients who seek treatment at CAPS-AD are men, single, with low education, with a fixed residence, unemployed and/ or looking for jobs, and family income below three minimum wages (Conceição et al., 2017; Oliveira et al., 2017; Castro Neto, Silva, Figueiroa, 2016).

Despite the existing clinical guidelines on pharmacological treatment for AUD and CUD, it remains unknown how CAPS-ADs provide pharmacological treatment for these disorders. In view of the above, the objective of this study was to determine the pharmacoepidemiologic treatment profile of a CAPS-AD when treating AUD, CUD and concomitant alcohol and cocaine use disorders (A-CUD) in Minas Gerais (MG), Brazil.

MATERIAL AND METHODS

Study Design and Location

This study used quantitative and descriptive data based on the evaluation of medical records of patients treated at CAPS-AD located in Betim (MG) from January 2016 to December 2016; data sampling was performed for convenience.

This modality of CAPS, established by the Ministry of Health, is recommended for municipalities with more than 70 thousand inhabitants, having as a minimum technical team for operation: one psychiatrist, one nurse with mental health training, one clinical doctor, four higher level professionals of the health area that are permanent to assist in the therapeutic project such as a psychologist, social worker, nurse, occupational therapist, pedagogue, pharmacist, and six mid-level professionals for example: nursing technician and/or auxiliary, administrative technician, educational technician and craftsman. The activities elaborated for the patients are defined according to the needs of each patient, being: individual attendance, collective attendance, attendance in therapeutic workshops, family care, and detoxification care, which are performed during the day in two shifts, and can be extended to a third shift, running until 9 pm (Brazil, 2004).

Inclusion/exclusion criteria

The inclusion criteria were medical records of patients of all genders and ages with a Diagnostic and Statistical Manual of Mental Disorders (DSM-V) alcohol or cocaine use disorder diagnosis, treated at the unit during the period previously mentioned. Patients were excluded from records that were not located for the application of the Informed Consent Form and medical records that did not present prescription of medications.

Participants

A total of 401 medical records were located in the period from January to December 2016. Of these, 106 were excluded, presenting the following reasons:

they did not present medication prescription in the last service performed by the team, considering the period from January to December 2016 (98); date of attendance referring to another year (2); user/family have stated that despite being referred to CAPS-AD, they do not use drugs (2); had a substance use disorder other than AUD or CUD (3); and for not having been able to locate the patient for clarification and application of the Informed Consent Form (1). Finally, 295 medical records were included because they were within the criteria established in the study.

The project was approved by the Committee of Ethics in Research with Human Beings of the University of Itaúna and the Municipal Secretariat of Betim, under the numbers CAAE 66859417.0.0000.5144 and 66859417.0.3001.5651.

Measures

All measures used in this study (e.g. participant's profile, DSM-V substance use diagnosis, types and percentages of medications prescribed) were obtained from CAPS-AD's medical record.

Analyzes

Profile characteristics were compared for participants with AUD, CUD or A-CUD using ANOVA for continuous variables and chi-square for dichotomous variables. In order to determine where group differences occurred, Tukey post hoc and column proportion Z test were conducted for the continuous and dichotomous variables, respectively. Finally, descriptive statistics on the epidemiology of the pharmacological treatment provided are presented according to the substance use disorder intended to treat (AUD, CUD or A-CUD) and whether they were in agreement with the Project Guidelines of Brazilian Medical Association and the Federal Council of Medicine for alcohol (Campana *et al.*, 2012) and cocaine (Romano, Ribeiro, Marques, 2002) use disorders. Pharmacological interventions were considered to be in accordance with the Brazilian medical guidelines if at least one of the medications recommended by these guidelines was prescribed by CAPS-AD's practitioners.

For all comparisons the significance level was set at 0.05. All statistical analyses were performed with Statistical Package for Social Sciences 19.

RESULTS

As can be seen in Table I, the majority of study participants were male (83.7 %) with an average age of 46.26 for AUD, 28.88 for CUD and 34.29 for A-CUD.

Those with A-CUD had a significantly greater chance of co-using tobacco, marijuana and other psychoactive substance (OSPA) compared to those with AUD, while those with CUD had higher odds of co-using marijuana compared to those with AUD. The A-CUD and CUD groups showed similar levels of co-use and did not differ statistically from one-another.

TABLE I - Main drugs of use, concomitant use of drugs, age and gender of patients attended at CAPS-AD of Betim (MG), Brazil, from January to December 2016

	Total (N = 295)		Alcohol (N = 146)		Cocaine (N = 26)		Alcohol + Cocaine (N = 123)		p-value	Test
	N	%	N	%	N	%	N	%		
Age (years)			46.26 (11.36)* [a]		28.88 (6.17)* [b]		34.29 (8.57)* [c]		0.000	ANOVA & Tukey
Male gender	247	83.7	125 [a]	85.6	21 [a]	80.8	101 [a]	82.1	0.676	Chi-square & Z test
Inhalant use concomitantly	13	4.4	0 [a]	0.0	1 [a, b]	3.8	12 [b]	9.8	0.001	Chi-square & Z test

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	N	%	N	%	N	%	N	%		
Marijuana use concomitantly	78	26.4	12 [a]	8.2	10 [b]	38.5	56 [b]	45.5	0.000	Chi-square & Z test
Tobacco use concomitantly	108	36.6	43 [a]	29.5	8 [a, b]	30.8	57 [b]	46.3	0.013	Chi-square & Z test
OSPA use concomitantly	10	3.4	1 [a]	0.7	0 [a, b]	0.0	9 [b]	7.3	0.007	Chi-square & Z test

* Values represented by mean and standard deviation. Each subscript letter denotes a subset of variables whose column proportions/means do not differ significantly from each other at the 0.05 level; OSPA: other psychoactive substance; CAPS-AD - Psychosocial Treatment Center for Alcohol and Substance Use Disorders

According to Table II, the most prescribed drugs for AUD were diazepam (54.1 %), thiamine (37 %), complex B vitamins (29.5 %) and disulfiram (2.7 %); for CUD, diazepam (26.9 %) and haloperidol (23.1 %). In addition, diazepam (40.7 %), haloperidol (26 %), clonazepam (15.4 %), thiamine (16.3 %), complex B vitamins (13.8 %), and disulfiram (8.1 %) were the most prescribed drugs for A-CUD. It should be noticed that although contraindicated by the guidelines, chlorpromazine (42.3 %, 25.3 %, 20.3%) was prescribed for CUD, AUD and A-CUD, respectively.

Considering the pharmacotherapy recommended by the Project Guidelines of the Brazilian Medical Association and Federal Council of Medicine for alcohol (Campana *et al.*, 2012) and cocaine (Romano, Ribeiro, Marques, 2002) use disorders, it was observed that of the total of 295 medical records, 79.3% were in accordance with these guidelines. According to Romano, Ribeiro, Marques (2002) no medication has been shown to be effective in treating cocaine addiction, nor in reducing the desire to use the drug. The conduct in this regard has been taken from clinical practice, without, however, there is supporting scientific evidence.

In the present study, only 4.8% of the AUD made use of at least one medication based on scientific evidence (Campana *et al.*, 2012), while 69.2% made use of at least one type of benzodiazepine. Regarding the CUD, no treatment was evidenced due to the lack of supporting scientific evidence, only the use of a type of benzodiazepine that represents 38.5%.

TABLE II - Prescribed drugs for patients attended at the Betim CAPS-AD recommended by the Project Guidelines of the Brazilian Medical Association and Federal Council of Medicine for alcohol (Campana *et al.*, 2012) and cocaine (Romano, Ribeiro, Marques, 2002) use disorders

PRESCRIBED MEDICATIONS	Alcohol (N = 146) Medical records		Cocaine (N = 26) Medical records		Alcohol + Cocaine (N = 123) Medical records	
	N	%	N	%	N	%
Preceded by the guideline for dependency						
Disulfiram	4	2.7	0	0.0	10	8.1
Naltrexone	2	1.4	0	0.0	1	0.8
Topiramate	1	0.7	0	0.0	3	2.4
Preceded by the directive for withdrawal syndrome and/or comorbidities						
Alprazolam	1	0.7	0	0.0	0	0.0
Clonazepam	8	5.5	3	11.5	19	15.4
Diazepam	79	54.1	7	26.9	50	40.7
Haloperidol	0	0.0	6	23.1	32	26.0
Lorazepam	13	8.9	0	0.0	7	5.7
Thiamine	54	37.0	0	0.0	20	16.3
Complex B Vitamins	43	29.5	0	0.0	17	13.8
Contraindicated by the guideline for the treatment						
Chlorpromazine	37	25.3	11	42.3	25	20.3
Levomepromazine	0	0.0	1	3.8	18	14.6

	Alcohol (N = 146) Medical records		Cocaine (N = 26) Medical records		Alcohol + Cocaine (N = 123) Medical records	
At least one type of evidence-based treatment	7	4.8	0	0.0	14	11.4
At least one type of benzodiazepine treatment	101	69.2	10	38.5	76	61.8

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DISCUSSION

Disulfiram was the first medication approved by the Food and Drug Administration for AUD. Because it is an anti-ethanol, it prevents the use of alcoholic beverages due to the unpleasant reactions (tachycardia, flushing, redness, nausea and vomiting) that can occur with concomitant alcohol use, by blocking the enzyme aldehyde dehydrogenase which generates an accumulation of acetaldehyde, resulting in an antabuse reaction, and for this reason its use can only be undertaken if the patient accepts and signs the term of responsibility (Williams, 2005; Hillemacher, Frieling, 2019). Because of the potential for a severe alcohol–disulfiram interaction, disulfiram is contraindicated in patients who are receiving or have recently received metronidazole or ingested alcohol, have psychosis, or have cardiovascular disease, and is not recommended for patients with severe pulmonary disease, chronic renal failure, or diabetes, or those older than 60 years. It is recommended that a physical exam, baseline liver and kidney function tests, and a pregnancy test for women be performed. An electrocardiogram should be performed if clinically indicated (e.g. history of heart disease) (Center for Substance Abuse Treatment, 2009; Williams, 2005). Thus, the monitoring of this treatment in a primary care center is limited both by patients' compliance and the resources offered for the complete monitoring of the patient (Williams, 2005).

Naltrexone, one of few approved medications for the treatment of alcohol dependence, delays a relapse to heavy drinking, reduces the number of heavy drinking days, and increases the number of days abstinent (Pettinati et al., 2006; Stoner, Arenella, Hendershot, 2015). Naltrexone decreases the pleasant effects of alcohol, since it prevents the increase of dopamine release (Hillemacher, Frieling, 2019). Naltrexone works as a nonselective antagonist of m, k, and d-opioid receptors. Endogenous opioids are released following alcohol consumption, contributing to positive reinforcement effects that may promote continued drinking in the alcohol-dependent individual. Potentially, by blocking this activity, naltrexone reduces the rewarding effects of alcohol and results in reduction in alcohol consumption (Fairbanks et al., 2020; Kranzler, Soyka, 2018).

The target population for naltrexone is men and women who wish to reduce heavy drinking or pursue abstinence, do not have significant hepatic insufficiency, and who are not taking opioids. Efficacy may favor males (Fairbanks et al., 2020). Naltrexone is relatively contraindicated in patients who have liverenzyme levels that are four to five times above the upper limit of the normal range. In addition, naltrexone, due to its blockade of brain opiate receptors, should not be used in patients who are dependent on opiates or those needing opiates for relief of chronic pain (Anton, 2008). Naltrexone is dosed orally at 50 mg once daily, or 380 mg via intramuscular (IM) injection once monthly. Liver function tests (LFTs) should be monitored regularly; although no standard monitoring frequency is defined on the product labeling, baseline, 1-month, and annual LFTs should be checked as minimum as there is a black box warning for hepatotoxicity with both the oral and IM form. Adverse effects include somnolence, nausea, vomiting, decreased appetite, abdominal pain, insomnia, and dizziness (Fairbanks et al., 2020).

However, naltrexone is not highly utilized, in part due to concerns regarding non-adherence (Stoner, Arenella, Hendershot, 2015). In our study naltrexone was prescribed only for two individuals with AUD (1.4 %). It is well recognized that the efficacy of naltrexone is contingent on high adherence. For example, the effects of naltrexone versus placebo may be evident only among patients with high adherence, and treatment outcomes correlate with adherence rates. Adequate naltrexone adherence has been defined as taking at least 80 % of prescribed doses. Naltrexone adherence is generally suboptimal over 12–16 weeks and worse over longer periods (Stoner, Arenella, Hendershot, 2015). In addition, this medication is not included in the Brazilian Public Health System (Sistema Único de Saúde - SUS) Pharmaceutical Assistance list (Brazil, 2015b).

Topiramate has also been shown to be potentially effective, although it has not been approved by the FDA for the treatment of alcohol dependence (Anton, 2008; Kranzler, Soyka, 2018; Pennington et al., 2020). Off label, topiramate can be considered for those with AUD (Fairbanks et al., 2020). In the present study, topiramate

was prescribed only to one individual with AUD and to three individuals with A-CUD. Topiramate works by facilitating GABA-A receptors and antagonizing a-amino-3-hydroxy-5-methyl-4- isoxazolepropionic acid and kainate glutamate receptors. These activities reduce dopamine levels in the mesocorticolimbic system and decrease alcohol induced reinforcement and the propensity to drink (Fairbanks *et al*., 2020). Topiramate is used to reduce depression and increase rates of abstinence and relapse, due to its glutamatergic and GABAergic neurotransmission action (Hillemacher, Frieling, 2019; Manhapra, Chakraborty, Arias, 2019).

It is important to note that the frequencies of thiamine (53.3 %) and complex B (43.3 %) are expressed only in AUD and A-CUD because they are recommended only in individuals with AUD due to Wernicke-Korsakoff syndrome (Thomaz *et al*., 2014). The use of complex B vitamins, especially thiamine, is extremely important among chronic alcohol patients due to a serious consequence of prolonged abuse - Wernicke-Korsakoff syndrome - characterized by nutritional deficiency in thiamine (vitamin b1). Chronic alcohol consumption can result in thiamine deficiency by causing inadequate nutritional thiamine intake, decreased absorption of thiamine from the gastrointestinal tract, and impaired thiamine utilization in the cells (Martin, Singleton, Hiller-Sturmhöfel, 2003). This deficiency causes brain damage such as degeneration in the myelin sheath of nerve fibers and in the nerves of the central nervous system and periphery, evidencing that the use of vitamins prevents the progression of damage in patients (Thomaz *et al*., 2014).

Benzodiazepines are medications used in anxiety, insomnia and epilepsy, as well as in acute alcohol withdrawal (Hillemacher, Frieling, 2019). The combination of disulfiram and a benzodiazepine could be particularly useful during initial treatment of patients with AUD and primary or secondary anxiety disorders. By providing an effective short-term treatment of anxiety, benzodiazepine could enhance retention and serve as a reinforcer of adherence to disulfiram (Brower, 2003; Bogenschutz *et al*., 2016).

However, alcohol and benzodiazepines have a synergistic depressant effect on the central nervous system. There are numerous dangers associated with mixing benzodiazepines and alcohol. Every warning label on the container for benzodiazepine cautions against this practice, and physicians often explicitly instruct their patients to avoid alcohol when they are prescribed benzodiazepines. The risks for abusing these drugs in combination are significantly more severe than the risks of abusing them singularly. Perhaps more worrisome is the fact that memory impairment is far more likely when these substances are combined. High doses or prolonged abuse of benzodiazepines can result in significantly impaired memory, mood swings, and behavioral changes (Hardey *et al*., 2020a; Hardey *et al*., 2020b).

Additionally, according to McHugh *et al*. (2020) benzodiazepine misuse is common in people with AUD and often occurs in a risky pattern of use involving other substances. However, little is known about how or why people with AUD misuse benzodiazepines. Multiple motives for benzodiazepine misuse were reported, including misusing benzodiazepines to mitigate anxiety, to enhance experiences or other drug effects, and polysubstance use is a strong predictor of misuse. Coping was the most common reason for misusing benzodiazepines, suggesting that un- or under-treated psychiatric symptoms may contribute to misuse. Research is urgently needed to better understand the risks and benefits of benzodiazepine prescribing in this population, predictors of problematic benzodiazepine misuse or other poor outcomes, and the relative efficacy of prescribing benzos compared to alternatives (e.g., antidepressants or behavioral therapies) for indicated conditions, such as insomnia and anxiety (McHugh *et al*., 2020).

According to Bogenschutz *et al*. (2016), the use of lorazepam benzodiazepine demonstrated a positive result in treatment with disulfiram, to alleviate the signs and symptoms of anxiety disorders in patients with AUD when used in the short term. They help in the detoxification period and in the control of drinking anxiety. However, further randomized studies are needed, including the use of benzodiazepines as drugs used to treat AUD.

Amato, Minozzi, Davoli (2010), in their systematic review which included sixty-four studies on the use of

benzodiazepines in the treatment of alcohol withdrawal symptoms, found that this class is effective in acute symptoms when compared to placebo, however it was not possible to verify safety and efficacy in the definitive use of these medications. Benzodiazepines decrease the state of withdrawal, the onset of delirium tremens and seizures when compared to anticonvulsants and antipsychotics. The dosage must be made individually, using them for the first seven days after the cessation of alcohol (Amato, Minozzi, Davoli, 2011; WHO, 2012).

Although adverse reactions such as sedation may occur, the use of benzodiazepines can be used in withdrawing alcohol use because they are well tolerated and reduce the symptoms of withdrawal syndrome, that is, when the benefits outweigh the risks (US, 2015).

It is worth mentioning that, there is no scientific evidence on the use of benzodiazepines in the primary treatment of AUD, except for alcohol detoxification or the treatment of alcohol withdrawal, which are outside the scope of this practice guideline. Therefore, clinicians should exercise caution because the use of benzodiazepines or other sedative-hypnotic agents in the setting of alcohol intoxication carries with it an increased risk for sedation, behavioural impairment, respiratory depression, and death in severe cases (American Psychiatric Association, 2018).

Regarding the treatment of CUD, diazepam is constantly used for acute cocaine intoxication and psychomotor agitation and conduct disorder. The use of benzodiazepines is still unclear for AUD and CUD, except to treat withdrawal symptoms and/or alcohol intoxication (Amaral, Malbergier, Andrade, 2010; American Psychiatric Association, 2018).

Because they have a low cost and a wide therapeutic spectrum, benzodiazepines such as diazepam and clonazepam are widely used in the management of mental disorders, however their use for a period longer than six months is contraindicated (Firmino et al., 2012). The results of this work showed that medications for AUD and A-CUD were only marginally prescribed in this CAPS and that these patients were being treated, in most cases, of a pharmacological intervention based only on benzos which is particularly problematic. In agreement, in a study carried out on the most prescribed drugs in the CAPS in

the municipality of Curitiba / PR, diazepam (18.73 %) was the most prescribed benzodiazepine (Boger et al., 2017). This medication was also the most dispensed by the public network of the municipality of Campo Mourão / PR in 2013 (99.86 %) (Padilha, Toledo, Rosada, 2014).

Effective treatments for the treatment of cocaine addiction are still unknown. The use of antidepressants shows a good result in mood stabilization, due to its primary indication, but this does not mean that this effect is able to stop the use of cocaine (Pani et al., 2011). Similarly, it happens with antipsychotics, which, despite acting in psychotic crises, do not treat the disorder caused by cocaine use (Indave et al., 2016).

Considering the treatment of CUD, haloperidol is indicated for the appearance of psychotic symptoms (paranoia, illusions or hallucinations) characteristic of acute crises and persistence of psychotic images as in the abstinence syndrome related to the use of alcohol and drugs and also for the treatment of schizophrenia, due to recurrent outbreaks (Grossi, Oliveira, 2013; Boger et al., 2017). This medication was also prescribed in other CAPS, such as in Curitiba / PR (26.98 %), Porcincula / RJ (43.75 %), and was 100 % available to CAPS users in the southern Brazilian region, with the class of antipsychotics being the second most prescribed (21.5 %) (Boger et al., 2017; Barboza, Silva, 2012; Kantorski et al., 2011).

The use of chlorpromazine and levomepromazine in patients with AUD, CUD and A-CUD is contraindicated by both guidelines, due to reduction in convulsion threshold (Romano, Ribeiro, Marques, 2002; Marques et al., 2012). However, the use of these drugs was also found in other CAPS, such as levomepromazine (16 %) in the CAPS in the municipality of Videira/SC (Carelli, Frighetto, Santin, 2016); in the CAPS in the municipality of Porciuncula/RJ chlorpromazine (20.83 %) and levomepromazine (14.58 %) were prescribed (Barboza, Silva, 2012).

It should be noticed that more therapeutic classes used in this study were also found in other studies conducted at CAPS (Leite et al., 2016). According to Zanetti et al. (2017), in a northwestern municipality of Rio Grande do Sul, it was found that 78.3 % used antipsychotics, 71.2 % antidepressants, 58.9 % antiepileptics, and 25.6 % anxiolytics (Zanetti et al., 2017).

According to Silva and Lima (2017), in their study on Pharmaceutical Assistance in Mental Health at CAPS in the Mid-Paraopeba/MG region, which includes CAPS-AD Betim, despite the existence of protocols and guidelines that assist health professionals, it is common for them not to adhere to the manuals. Among the most available medications in dispensing units in this region are clonazepam (92.3 %), diazepam (92.3 %), haloperidol (100 %), and chlorpromazine (100 %) (Silva, Lima, 2017).

The present study has the following limitations: despite the existence of pharmacological guidelines, it was not possible to identify in this study whether the dosages were in accordance with the Brazilian medical guidelines and if there was adherence to the entire treatment by the patients.

CONCLUSION

Medications are one of the main allies in the treatment of drug use disorders because they act in the biochemical process of the organism, helping the patient to stay abstinent. These are made available to the municipality by the SUS and because of this, knowing the pharmacoepidemiological profile of CAPS-AD patients is extremely important for making decisions about which medicines to make available to the population.

In CAPS-AD Betim, the most prescribed medications were diazepam, haloperidol, clonazepam, thiamine, and B vitamins.

Thus, the pharmacist can contribute to the doctors in making decisions regarding the prescriptions in order to increase the success in adherence to treatment, and also to become more up to date in new medicines or in medicine combinations.

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