

ANALYSIS OF CONSUMPTION AND COST OF PSYCHOTROPICS FOR FIVE YEARS IN THE MUNICIPALITY OF FOZ DO IGUAÇU – PR

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Abstract: Introduction: The emergence of mental problems such as depression and anxiety has become a serious comorbidity that, if left untreated, generates significant consequences. Among the main classes of psychotropic drugs recommended for the treatment of anxiety and depression are benzodiazepines, inhibitors selective serotonin reuptake drugs (SSRIs) and tricyclic antidepressants (TCAs). Objective: In this sense, the present work sought to answer two guiding questions: what was the consumption of these drugs in the last five years concomitantly with the Covid-19 pandemic and the cost consequences in the region of Foz do Iguaçu – PR. Materials and methods: This is a documentary study, which will be carried out after the consent of the Municipal Health Department of Foz do Iguaçu - PR, where data will be collected from the analysis of annual reports from the last five years (2019 to 2023) provided by the Pharmaceutical Assistance Division (DVFAR) for subsequent analysis and evaluation of the quantity of consumption, individual and collective, together with an economic quantity. Results and discussion: in relation to consumption, the visible curve of Fluoxetine 20 mg with the highest number of units consumed and Clonazepam 2.5 mg/ml with the lowest consumption over five years stands out. Regarding cost, the clearly visible increase in the cost of Clonazepam 2.5 mg/ml drops in relation to other medications and Amitriptyline 25 mg tablets with the lowest average cost stands out. Conclusion: Fluoxetine 20 mg had greater consumption during the 5 years of research, not negatively affecting the costs of acquiring it and that Clonazepam 2.5 mg/ml, when supplied from 2021 in the pharmaceutical form of drops, had a significant impact on costs during the same period.

Keywords: Psychotropics; Depression; Anxiety; Consumption; Cost.

INTRODUCTION

According to the World Health Organization (WHO), the estimated number of people with depression worldwide is around 300 million and of these, 800,000 die by suicide each year, being the second leading cause of death among people with depression. aged between 15 and 29 years (SANTOS et al., 2022). In addition to depression, mental health problems include conduct disorders, anxiety, self-harm, eating disorders and hyperkinetic disorders, thus becoming a serious comorbidity (BATISTA, 2021)

Along with this, in Brazil, a study showed that, during the pandemic period, Brazilians frequently felt sad or depressed, with more than half feeling anxious or nervous, as well as experiencing sleep problems or sleep problems. aggravated pre-existing condition (BARROS et al., 2020).

With symptoms that include loss of sense of control and a subjective experience of great distress, loss of energy, loss of interest, depressed mood, anhedonia, constant fatigue, difficulty concentrating, decreased ability to think, difficulties in making decisions, loss of appetite, low self-esteem, feelings of worthlessness or guilt and thoughts about death and suicide, depression must be treated to avoid serious consequences (GUSMÃO et al., 2020).

Depression has treatment that consists, primarily, of psychological therapies, together with cognitive-behavioral therapy. The use of antidepressant medications are secondary resources reserved especially for moderate and severe conditions, but this will only happen after a careful evaluation carried out by a psychologist or psychiatrist (GUSMÃO et al., 2020).

In treatment, the patient must have the help of a multidisciplinary team that includes a psychologist, psychiatrist, pharmacist, social worker, nurse and doctor, all of

these professionals together guarantee the effectiveness of the proposed treatment (VALENÇA et al., 2020).

Among the main classes of psychotropic drugs recommended for the treatment of anxiety and depression are benzodiazepines, inhibitors selective serotonin reuptake drugs (SSRIs) and tricyclic antidepressants (TCAs) (NASCIMENTO et al., 2023). Due to the increase in the prescription of psychotropic drugs and the possible abuse of these drugs in some countries, pharmaceutical costs and the unknown risks that these drugs can cause in the long term, this issue has become a global public health problem (BATISTA, 2021).

In view of the above, the study on the use of psychotropic medications becomes very relevant, as the results obtained can help to assess this problem and serve as a basis for planning actions to control the use of these drugs. In this sense, the present work sought to answer two guiding questions: what was the consumption of these drugs in the last five years concomitantly with the Covid-19 pandemic and the cost consequences in the region of Foz do Iguaçu – PR.

OBJECTIVES

GENERAL OBJECTIVE

Identify the consequences of the use and cost of psychotropic medications.

SPECIFIC OBJECTIVES

Identify, among the defined classes of psychotropic medications, the consumption in the last five years in the region of Foz do Iguaçu – PR;

Observe the costs incurred by this class of selected medicines;

Associate consumption and cost with the Covid-19 pandemic.

MATERIALS AND METHODS

This is a documentary study, which will be carried out after the consent of the Municipal Health Department of Foz do Iguaçu - PR, where data will be collected from the analysis of annual reports from the last five years (2019 to 2023) provided by the Division of Pharmaceutical Assistance (DVFAR). The reports will be evaluated based on the main psychotropic drugs previously selected through the Municipal Medicines List (REMUME) of Foz do Iguaçu, these being: Clonazepam 2mg, Fluoxetine 20mg, Amitriptyline 25mg, Nortriptyline 25mg and Diazepam 5 and 10 mg.

This research tends to be developed in the first half of 2024 where the quantity of consumption, individual and collective, will be evaluated, together with an economic quantity, this being the cost-effectiveness analysis over the last 5 years correlating the Covid-19 Pandemic that occurred in same period.

RESULTS AND DISCUSSION

Figure 1 presents the relationship between the consumption of psychotropic drugs in the city of Foz do Iguaçu, Paraná over five years of research. It is noteworthy that Fluoxetine 20 mg capsule had the highest number of units consumed, while Clonazepam 2.5 mg/ml had the lowest consumption rate in the same study period.

In a survey presented by Penha et al (2022), it can be seen that among the medications used for central nervous system disorders most consumed in a region of Bahia were medications belonging to the Selective Serotonin Reuptake Inhibitors (SSRI) class. of which fluoxetine 20mg was the most prescribed, these results are similar to those presented by Cologni and his collaborators. Such results can be justified by the fact that fluoxetine 20mg has a low cost for the Unified Health System (SUS) and high

pharmacological relevance in the treatment of cases of depression and anxiety.

In the same research by Penha et al (2022), it was observed that the Clonazepam (2.5mg/ml and 2.0mg), belonging to the Benzodiazepine class, was the second most prescribed, differing from those presented by Cologni and his collaborators. This divergence may have occurred due to the fact that Clonazepam 2.5 mg/mL was made available in the municipality of Foz do Iguacu only from 2021 onwards, making the prescription of this medication take longer to appear, implying much less consumption of it. than existing medicines since 2019.

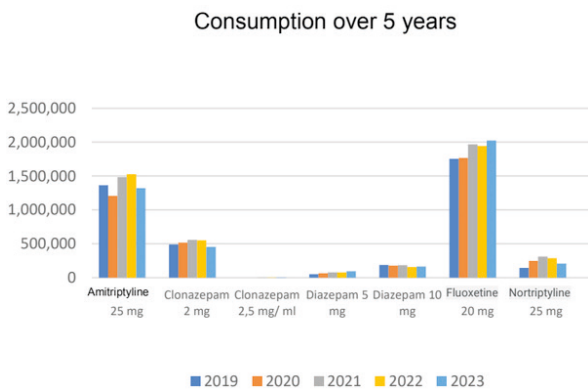


Figure 1 -Graph referring to the consumption of seven medications from the psychotropic class in pharmaceutical form tablets, capsules and drops over five years (2019 to 2023).

Figure 2 presents the cost list of seven psychotropic drugs in the city of Foz do Iguacu, Paraná over five years of research. The higher cost of Clonazepam 2.5 mg/ml stands out considerably, and Amitriptyline 25 mg together with Clonazepam 2 mg had the lowest costs in reais over the five years.

In a survey carried out by Figueiredo (2015), carried out in Minas Gerais for 3 years, among psychotropic medications, the highest percentage of annual expenditure was on antipsychotics (43%), represented by haloperidol, chlorpromazine and lithium carbonate. Results that differ from those

of Cologni and his collaborators can be explained by the fact that clonazepam 2.5 mg/ml will be distributed from 2021 and will have a considerable impact on the municipality's expenses.

Still according to the same study, it is observed that the class of antidepressants such as Amitriptyline, had a lower expense among the classes studied, results similar to those of Cologni, which can be explained by the fact that this medication is considered a standard, effective and effective antidepressant. easily available in Basic Health Units, giving it a lower cost.

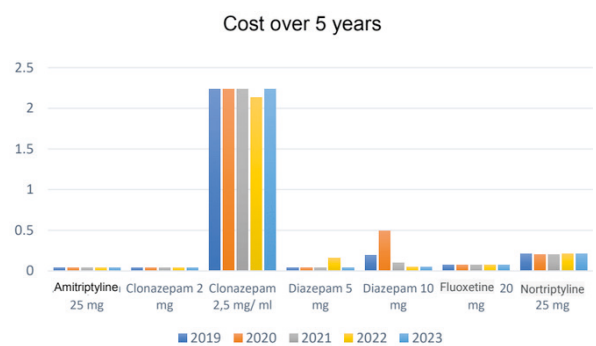


Figure 2: Chart referring to the cost of seven medications from the psychotropic class in pharmaceutical form tablets, capsules and drops for five years (2019 to 2023).

Figure 3 shows the list of general average consumption over the 5 years in the municipality of Foz do Iguacu, Paraná. The visible curve of Fluoxetine 20 mg with the highest number of units consumed and Clonazepam 2.5 mg/ml with the lowest consumption over five years stands out.

In a study carried out by Bomfim et al (2023) carried out at a UBS in the Federal District, it was observed that medications from the benzodiazepine classes were more relevant in the years 2019 to 2022, with Clonazepam 2.5 mg/ml and Diazepam 5 mg with a significant increase in all years, different from the results demonstrated by Cologni where, from the benzodiazepine class, Diazepam 2 mg stood

out with an increase in consumption over 5 years. This difference can be explained due to the fact that Clonazepam 2.5 mg/ml was made available in the municipality of Foz do Iguaçu only from the year 2021, meaning that the emergence of prescriptions for this medication took a long time to emerge, implying much less consumption than the medications existing since 2019.

Regarding the class of selective serotonin reuptake inhibitors (SSRIs), Bomfim's study corroborates that of Cogni and his collaborators, showing an increase in the consumption of Fluoxetine 20 mg in all pandemic years, given that SSRIs are psychotropic drugs of first choice in a variety of mental disorders, such as panic disorder, and with a broad spectrum for the treatment of depression, social phobia and obsessive compulsive disorder, in addition to the tolerability of side effects and easy access to the population.

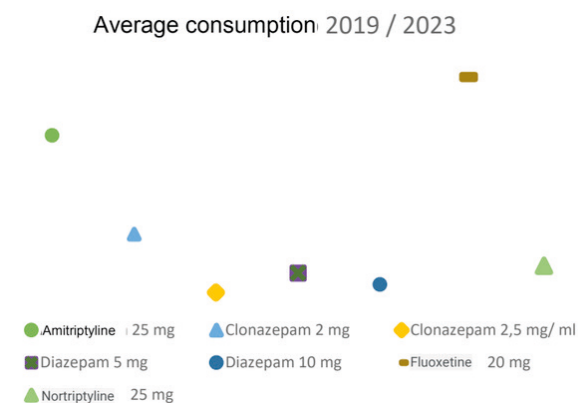


Figure 3: Graph referring to the average consumption of seven drugs from the psychotropic class in pharmaceutical form in tablets, capsules and drops during five years (2019 to 2023).

Figure 4 shows the relationship of the general average cost over the 5 years in the municipality of Foz do Iguaçu, Paraná. The clearly visible increase in the cost of Clonazepam 2.5 mg/ml drops in relation to other medications and Amitriptyline 25 mg

tablets with the lowest average cost stands out.

In a survey carried out by Figueiredo, Alessandra (2015), carried out in Minas Gerais, the high percentage of spending on antipsychotic medications over 3 years of research is mainly due to haloperidol, which alone represented 38% of the costs of the medication group. psychotropic drugs, different from the results presented by Cogni where the highest cost is expressed by Clonazepam 2.5 mg as it was implemented in 2021 and resulted in greater expenses for the municipality of Foz do Iguaçu.

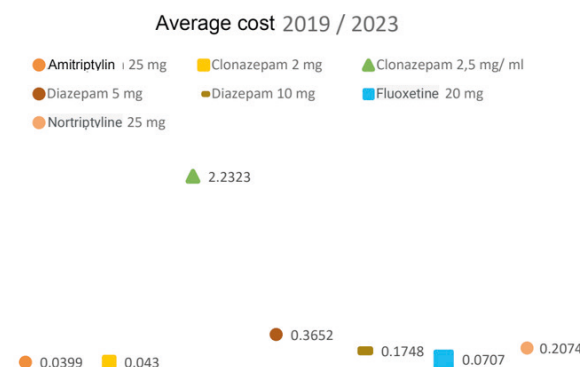


Figure 4: Graph referring to the average cost of seven drug classes of psychotropic drugs in pharmaceutical form in tablets, capsules and drops for five years from 2019 to 2023.

CONCLUSION

According to the data analyzed, it was possible to observe that the Municipality of Foz do Iguaçu records a large demand for psychotropic drugs and makes the public budget for the purchase of medicines sufficient to date.

It is clear that Fluoxetine 20 mg had a greater consumption during the 5 years of research, not negatively affecting the costs of acquiring it and that Clonazepam 2.5 mg/ml, when supplied from 2021 in the pharmaceutical form of drops, had an impact significantly in costs during the same period.

Another evident fact was the increase in the use of psychotropic drugs among young

people and adults with the emergence of COVID-19, defining a correlation between the increase in disorders such as depression and anxiety and the use of substances as a way of minimizing impacts caused by the pandemic.

Finally, new studies on this topic are suggested, such as awareness campaigns on the rational use of psychotropic drugs, educational materials for the community and workshops for health professionals.

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