



Impact of the COVID-19 pandemic on the profile of patients attended at a Psychosocial Care Center

Impacto da pandemia da COVID-19 no perfil dos pacientes acompanhados em um Centro de Atenção Psicossocial

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ABSTRACT

This study aimed to understand the impacts of the COVID-19 pandemic on the sociodemographic, clinical, and pharmacotherapeutic profile of the population attended by a Psychosocial Care Center (CAPS) III. This is a cross-sectional study based on the analysis of medical records of patients treated at CAPS III in Divinópolis, in the state of Minas Gerais, during the prepandemic period (April 1, 2019 to March 31, 2020) and during the pandemic (April 1, 2020 to March 31, 2021). After analyzing 303 medical records, it was observed that during the pandemic there was an increase in suicide attempts/suicidal ideation, as well as a higher occurrence of manic episodes and the use of antidepressants and antiepileptic medications, which are also used as mood stabilizers. This study demonstrated the need to understand not only the physical impacts that health crises can cause but also the impacts on mental health.

Keywords: Infection SARS-CoV-2. Mental Disorders. Mental Health Services.

RESUMO

Este estudo teve como objetivo conhecer os impactos da pandemia da COVID-19 no perfil sociodemográfico, clínico e farmacoterapêutico da população atendida pelo Centro de Atenção Psicossocial (CAPS) III. Trata-se de um estudo transversal, com base na análise de prontuários médicos, de pacientes atendidos no CAPS III, em Divinópolis-MG, no período pré-pandemia (01 de abril de 2019 a 31 de março de 2020) e durante a pandemia (01 de abril de 2020 a 31 de março de 2021). Após a análise de 303 prontuários médicos observou-se que, durante a pandemia, houve aumento das tentativas de autoextermínio/ideação suicida, bem como maior ocorrência de episódios maníacos e o uso de medicamentos da classe de antidepressivos e antiepiléticos, usados também como estabilizadores de humor. Este estudo demonstrou a necessidade de compreender não apenas os impactos físicos que crises sanitárias podem causar, mas também os impactos na saúde mental

Palavras-chave: Infecção pelo SARS-CoV-2. Serviços de Saúde Mental. Transtornos Mentais.

INTRODUCTION

In 2019, in the city of Wuhan, China, the first cases of an acute respiratory syndrome emerged, which was later identified as caused by the SARS-CoV-2 virus, belonging to the Coronavirus family. One of the characteristics of this virus is its high transmissibility, which led to the outbreak being declared a pandemic as early as March 2020. In that same month, Brazil recorded its first death^{1,2}. The COVID-19 pandemic was described as one of the greatest international public health problems in recent times². Until April 2023, more than 764 million cases of COVID-19 and almost 7 million deaths were recorded worldwide^{3,4}. In Brazil, there were more than 37 million confirmed cases and more than 701,000 deaths⁵. In the state of Minas Gerais (MG), the total number of confirmed cases by April 2023 was 4,204,916 cases and 65,657 deaths⁶.

Isolation measures had to be implemented, including the use of protective masks, frequent hand hygiene, maintaining a safe distance between people (social distancing), and awareness of leaving home only when absolutely necessary (social isolation)7. Businesses and borders were closed, bus routes were reduced, people's working hours were consequently, their salaries were also reduced. Many lost their jobs, and many others lost hope of finding job opportunities. As a result, the unemployed number of people consequently, families in situations of high social and financial vulnerability increased8.

Unemployment, poverty, lack adequate health conditions, poor sanitary conditions, and deaths, combined with social isolation, had significant impacts on the population's mental health^{9,10}. Additionally. uncertainties regarding vaccine production and treatment, the lack of hospital beds and equipment, a positive diagnosis for the disease, having an infected family member, and dealing with grief and funerals without wakes caused fear, anxiety, hopelessness, and consequently, psychological impacts that were not initially expected11.

The COVID-19 pandemic had a significant global impact on mental health.

Various studies conducted in different countries have documented this phenomenon. For example, in Italy, Rossi et al. (2020)12 found a significant increase in symptoms of depression, anxiety, and stress among the general population during the pandemic. In the United States, Czeisler et al. (2020)¹³ reported an increase in the prevalence of symptoms of mental disorders, including suicidal ideation, especially among young adult caregivers. Additionally, a study conducted in China by Wang et al. (2020)14 showed that during the initial phase of the COVID-19 outbreak in that country, more than half of the respondents rated the psychological impact as moderate to severe, and about onethird reported moderate to severe anxiety.

It is known that promoting mental health is crucial for the population, especially in times of crisis such as the COVID-19 pandemic. Effective mental health promotion strategies can reduce the negative impact of stressors and prevent the development of severe mental disorders. Thus, in the context of activity restrictions, the technical note prepared by the Ministry of Health in March 2020 recommended that the Psychosocial Care Networks maintain their care activities to provide support to people in crisis, manage acute and exacerbated conditions, address demands, and therapeutic continue ongoing treatment, provided that preventive measures and health safety protocols were maintained¹⁵, emphasizing the importance of Psychosocial Care Centers (CAPS) during the pandemic. It is known that admission for follow-up at CAPS is related to the presence of a psychiatric condition with acute and potentially severe symptoms, which require intervention, something that has been little explored in the literature¹⁶.

Therefore, considering that CAPS has the role of providing care to the population in its coverage area, offering clinical follow-up, pharmacological treatment, and supporting the reintegration through social users interdisciplinary care provided by multidisciplinary team of doctors, social workers, psychologists, psychiatrists, among specialists^{16,17}, and taking into account the psychosocial context triggered by the pandemic, which is related to the worsening of physical, behavioral, and psychological aspects

patients¹⁸, this study aimed to understand the impacts of the COVID-19 pandemic on the sociodemographic, clinical, and pharmacotherapeutic profile of the population attended by CAPS, as well as possible associated factors.

METHODOLOGY

DESIGN

This is a cross-sectional study, following the guidelines proposed by the Strengthening the of Observational Reporting **Studies** Epidemiology (STROBE), conducted through retrospective data collection from medical records of patients admitted for treatment at CAPS III in Divinópolis-MG. Data were collected between May 2021 and February 2022, covering records of patients treated at CAPS III before and after the start of social isolation measures. The period before the social isolation measures was from April 1, 2019 to March 31, 2020, while the period after was from April 1, 2020 to March 31, 2021.

STUDY SITE

Psychosocial Care Centers are organized into different modalities to better serve users according to the size of the municipality and the different services provided. CAPS III, according to Ordinance No. 3,088, dated December 23, 2011, "serves people with severe and persistent mental disorders. It provides continuous care services, operating twenty-four hours, including holidays and weekends, offering clinical support and night shelter for other mental health services, including support for patients who use alcohol and other drugs, recommended for municipalities or regions with a population above 200,000 inhabitants." Divinópolis has an estimated population of 242,505 inhabitants, according to IBGE data (2021)¹⁹, and its CAPS III is responsible for attending to psychiatric emergencies of people in psychiatric distress who need immediate intervention. They are received without prior appointment and promptly evaluated and assisted as needed.

STUDY POPULATION

The study population was defined by convenience sampling, analyzing the records of all patients admitted in any treatment modality during the period of interest. Patients included were residents of Divinópolis-MG, over 18 years old, of both sexes. Patients who were discharged for abandoning treatment, those with illegible records, those transferred to other treatment modalities (general hospital or psychiatric hospital), and those with incomplete data in the information systems used were excluded from the study

VARIABLES

To collect the variables of interest, a form was constructed according to the proposed objective and the information available in the records. The variables collected included: sociodemographic profile (age, sex, marital status, education, employment status, housing conditions), risk factors for COVID-19 (age > 60 years, diabetes, hypertension, asthma/chronic obstructive pulmonary disease - COPD, obesity, smoking), criteria for admission to treatment, hypotheses, pharmacological diagnostic treatment, and number and duration of each treatment period. These variables were evaluated to verify possible changes before and during the pandemic. Data collection was carried out by a single researcher to avoid possible biases, with the support of a reviewer, a member of the research team and CAPS staff, to clarify any doubts.

STATISTICAL ANALYSIS

The collected data were entered into the Questionnaire Development System (QDS) program and later exported to the Statistical Package for the Social Sciences (SPSS), version 21.0, for statistical analysis. The Kolmogorov-Smirnov test was used to check the normality of quantitative variables. In cases of normality, the variables were presented as mean and standard deviation; in cases of non-normal distribution,

they were presented as median and interquartile range. To compare age means, the Student's t-test was applied to determine if there were statistically significant differences between the variable means. To assess the association between categorical variables before and during the pandemic, Pearson's chi-square test was used. Statistical significance was considered with a p-value <0.05.

ETHICAL CONSIDERATIONS

The Research Ethics Committee involving human beings of the Federal University of São João del-Rei approved the development of

this research under opinion number: 5.339.243, CAAE 51875621.6.0000.5545, in accordance with Resolution No. 466 of 2012.

RESULTS

This study included a total of 340 patients, divided into two groups: patients undergoing treatment at CAPS III one year before the pandemic and patients undergoing treatment at CAPS III during the first year of the pandemic, after the lockdown. After applying the exclusion criteria, the total number of patients was reduced to 303, of which 16 were identified as deceased, as presented in Figure 1.

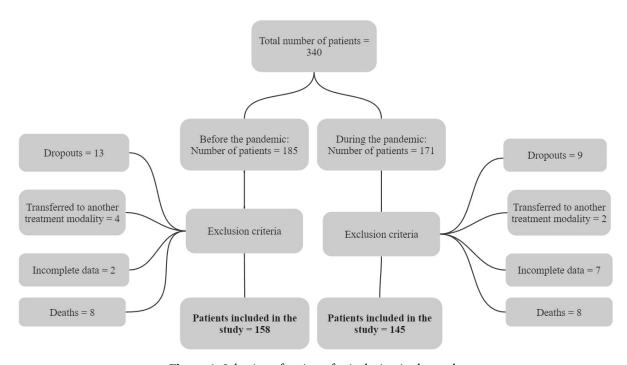


Figure 1: Selection of patients for inclusion in the study.

The study showed that the patients' age range was 45.1 ± 13.1 years before the pandemic and 44.3 ± 13.2 years during the pandemic. In both periods respectively, the majority of patients were female (61.1 % and 62.1 %), single (47.5 % and 45.4 %), with incomplete elementary

education (57.2 % and 51.2 %), formal employment (33.3 % and 46.4 %), and living with family or relatives (85.7 % and 88.0 %). There was no statistically significant difference between the patient profiles in the analyzed periods, as shown in Table 1.

Table 1. Sociodemographic data of patients admitted to the Psychosocial Care Center (CAPS) III in the city of Divinópolis from April 1, 2019, to March 31, 2021.

COCIODENOCHADING DATA	BEFORE PANDEMIC	DURING PANDEMIC	. 1	
SOCIODEMOGRAPHIC DATA	n (%)	n (%)	– p-value*	
Age	45.1 (<u>+</u> 13.1) ^a	44.3 (<u>+</u> 13.2) ^a	0.606 ^b	
Sex	n=157	n=145		
Male	61(38.9)	55 (37.9)	0.869	
Female	96 (61.1)	90 (62.1)		
Marital Status	n=120	n=108		
Single	57 (47.5)	49 (45.4)		
Married	48 (40.0)	36 (33.3)		
Separated/Divorced	10 (8.3)	16 (14.8)	0.613	
Widowed	2 (1.7)	3 (2.8)		
Cohabiting	3 (2.5)	4 (3.7)		
Education	n=138	n=121		
Illiterate	7 (5.1)	7 (5.8)		
Incomplete Elementary School	79 (57.2)	62 (51.2)		
Complete Elementary School	8 (5.8)	5 (4.1)		
Incomplete High School	13 (9.4)	16 (13.2)	0 /50	
Complete High School	25 (18.1)	18 (14.9)	0.458	
Incomplete Higher Education	3 (2.2)	7 (5.8)		
Complete Higher Education	3 (2.2)	6 (5.0)		
Not Informed	20 (12.7)	24 (15.2)		
Employment Status	n=108	n=97		
Formal Employment	36 (33.3)	45 (46.4)		
Informal Employment	24 (22.2)	16 (16.5)		
Unemployed	23 (21.3)	13 (13.4)	0.152	
Never Worked	3 (2.8)	0 (0.0)	0.153	
Incapacitated	4 (3.7)	3 (3.1)		
Homemaker	18 (16.7)	20 (20.6)		
Living Conditions	n=42	n=25		
Lives Alone	6 (14.3)	3 (12.0)	0.704	
Lives with Family/Relatives	36 (85.7)	22 (88.0)	0.791	

a Mean and standard deviation. b T-test. * Chi-square test.

Most patients did not present risk factors for COVID-19 before and during the pandemic (n=99; 66.4 % and n=100; 73 %, respectively) (p=0.229). Among those who presented risk factors before and during the pandemic, the majority involved hypertension (n=27; 54 % and n=20; 54.1 %), age equal to or greater than 60 years (n=20; 40 % and n=15; 40.5 %), diabetes (n=10; 20 % and n=5; 13.5 %), smoking (n=5; 10 % and n=1; 2.7 %), and asthma/COPD (n=4; 8 % and n=4; 10.8 %).

Table 2 presents the criteria described as the cause of admission for treatment of patients in the periods before and during the pandemic. It was observed that there were more complaints of delirium before the pandemic (26.1 %) than during the pandemic (15.2 %) (p = 0.019). In contrast, suicide attempt/suicidal ideation increased during the pandemic, rising from 23.4 % to 33.8 % (p = 0.045).

Table 2. Criteria described as the cause for admission for treatment of patients admitted to the Psychosocial Care Center (CAPS) III in the city of Divinópolis from April 1, 2019, to March 31, 2021.

CRITERIA FOR ADMISSION	BEFORE PANDEMIC	DURING PANDEMIC	- p-value*	
CRITERIA FOR ADMISSION	n (%)	n (%)		
Depression/Ruinous Ideas	20 (12.7)	12 (8.3)	0.215	
Anxiety/Chest Tightness/Heart Pain	13 (8.2)	8(5.5)	0.353	
Insomnia	18(11.5)	18 (12.4)	0.799	
Mental Confusion	28 (17.8)	35 (24.1)	0.178	
Aggressiveness (hetero-aggressiveness)	16 (10.2)	25 (17.2)	0.074	
Psychomotor Agitation/Restlessness	16 (10.2)	23 (15.9)	0.142	
Delirium	41 (26.1)	22 (15.2)	0.019	
Suicide Attempt/Suicidal Ideation	37 (23.4)	49 (33.8)	0.045	
Non-Adherence/Irregular Medication Use	38 (24.1)	22 (15.2)	0.053	
Self-Care Deficit	13 (8.3)	6 (4.1)	0.139	
Anorexia/Loss of Appetite	8 (5.1)	2 (1.4)	0.071	
Mood Swings/Emotional Lability	28 (17.7)	19 (13.1)	0.267	
Anguish/Guilt	5 (3.2)	5 (3.4)	0.898	
Psychic Destabilization	19 (12.1)	24 (16.6)	0.269	

^{*} Chi-square test.

Table 3 describes the most frequent diagnostic hypotheses in the study. Regardless of the period evaluated, the most frequent disorders were schizophrenia (F20) (n=34; 21.5 % before the pandemic and n=33; 22.8 % during the pandemic), bipolar affective disorder (F31) (n=27; 17.1 % before the pandemic and n=21; 14.5 % during the pandemic), recurrent

depressive disorder (F33) (n=32; 20.3 % before the pandemic and n=24; 16.6 % during the pandemic), and specific personality disorders (F60) (n=25; 15.8 % before the pandemic and n=24; 16.6 % during the pandemic). These disorders remained prevalent, although they did not show a statistically significant increase or difference.

Table 3. Diagnostic Hypotheses of patients admitted to the Psychosocial Care Center (CAPS) III in the city of Divinópolis from April 1, 2019, to March 31, 2021.

DIAGNOSTIC HYPOTHESES**	BEFORE PANDEMIC	DURING PANDEMIC	p-
	n (%)	n (%)	—value*
F10 – Mental and Behavioral Disorders Due to Alcohol Use	6 (3.8)	4 (2.8)	0.613
F19 – Mental and Behavioral Disorders Due to Multiple Drug Use and Use of Other Psychoactive Substances	of 13 (8.2)	6 (4.1)	0.142
F20 – Schizophrenia	34 (21.5)	33 (22.8)	0.795
F25 – Schizoaffective Disorders	5 (3.2)	2 (1.4)	0.301
F29 – Unspecified Non-Organic Psychosis	20 (12.7)	18 (12.4)	0.949
F30 – Manic Episode	0 (0)	7 (4.8)	0.005
F31 – Bipolar Affective Disorder	27 (17.1)	21 (14.5)	0.535
F32 – Depressive Episodes	16 (10.1)	15 (10.3)	0.950
F33 – Recurrent Depressive Disorder	32 (20.3)	24 (16.6)	0.407
F44 – Dissociative (Conversion) Disorders	6 (3.8)	5 (3.4)	0.871
F60 – Specific Personality Disorders	25 (15.8)	24 (16.6)	0.863
F71 – Moderate Mental Retardation	6 (3.8)	7 (4.8)	0.658

^{*}Chi-square test. ** The table presents diagnostic hypotheses that had an absolute frequency greater than five patients in at least one of the analyzed periods.

A notable diagnostic hypothesis, although not prevalent, is the manic episode (F30). In the period before the pandemic, there were no recorded cases. In contrast, during the pandemic, the number of manic episodes increased significantly, with seven recorded cases (4.8 %) (p=0.005). Manic episodes include hypomania, mania without psychotic symptoms, mania with psychotic symptoms, other manic episodes, and unspecified manic episodes. This disorder is mainly characterized by a phase of abnormally elevated, expansive, or irritable mood 20 .

Regarding medication use, there was a higher frequency of antipsychotic prescriptions, followed by benzodiazepines, antidepressants, and antiepileptics. Benzodiazepine medications showed a statistically significant variation, with varied distribution between the medications in this class and the periods of use, as presented in Table 4. Oxcarbazepine, in addition to its antiepileptic function, also has a mood-stabilizing effect - off-label use - and its use increased at discharge during the pandemic (p = 0.037). Sertraline (p=0.016) also drew attention, showing greater use of this antidepressant at discharge during the pandemic. Haloperidol was also widely used, both at admission (46.7 % before the pandemic and 42.3 % during the pandemic) and at discharge (46.9 % before the pandemic and 41 % during the pandemic), as presented in Table 4.

Table 4. Medications used by patients admitted to the Psychosocial Care Center (CAPS) III in the city of Divinópolis from April 1, 2019, to March 31, 2021.

	ADMISSION DATA			DISCHARGE DATA		
MEDICATIONS IN USE **	BEFORE PANDEMIC	DURING PANDEMIC	_ p-value*	BEFORE PANDEMIC	DURING PANDEMIC	_ p-valor*
	N (%)	N (%)	•	N (%)	N (%)	
Anticholinergics						
Biperiden	54 (36)	49 (35.8)	0.967	78 (53.1)	59 (44)	0.13
Benzodiazepines	n=158	n=160		n=152	n=136	
Alprazolam	10 (6.7)	9 (6.6)	0.974	19 (12.9)	4 (3)	0.002
Clonazepam	75 (50)	82 (59.9)	0.094	70 (47.6)	81 (60.4)	0.031
Diazepam	23 (15.3)	8 (5.8)	0.01	19 (12.9)	8 (6)	0.048
Flurazepam	7 (4.7)	6 (4.4)	0.907	8 (5.4)	5 (3.7)	0.495
Nitrazepam	43 (28.7)	55 (40.1)	0.041	36 (24.5)	38 (28.4)	0.462
Antiepileptics	n=76	n=79		n=103	n=95	
Valproic Acid	34 (22.7)	32 (23.4)	0.889	60 (40.8)	44 (32.8)	0.166
Carbamazepine	12 (8)	15 (10.9)	0.393	14 (9.5)	11 (8.2)	0.699
Oxcarbazepine	2 (1.3)	7 (5.1)	0.067	2 (1.4)	8 (6)	0.037
Topiramate	28 (18.7)	25 (18.2)	0.927	27 (18.4)	32 (23.9)	0.257
Antidepressants	n=98	n=78		n=112	n=85	
Amitriptyline	8 (5.3)	3 (2.2)	0.166	13 (8.8)	3 (2.2)	0.017
Clomipramine	11 (7.3)	10 (7.3)	0.991	13 (8.8)	15 (11.2)	0.511
Fluoxetine	28 (18.7)	15 (10.9)	0.067	34 (23.1)	10 (7.5)	0.00
Imipramine	9 (6)	4 (2.9)	0.21	5 (3.4)	5 (3.7)	0.881
Nortriptyline	7 (4.7)	8 (5.8)	0.656	11 (7.5)	7 (5.2)	0.44
Sertraline	29 (19.3)	33 (24.1)	0.328	25 (17)	39 (29.1)	0.016
Venlafaxine	6 (4)	5 (3.6)	0.877	11 (7.5)	6 (4.5)	0.291
Mood Stabilizers						
Lithium Carbonate	24 (16)	26 (19)	0.506	43 (29.3)	27 (20.1)	0.078

Antipsychotics	n=174	n=152		n=209	n=172	
Chlorpromazine	39 (26)	41 (29.9)	0.459	62 (42.2)	45 (33.6)	0.138
Haloperidol	70 (46.7)	58 (42.3)	0.461	69 (46.9)	55 (41)	0.32
Haloperidol drops	6 (4)	4 (2.9)	0.618	5 (3.4)	4 (3)	0.843
Levomepromazine	34 (22.7)	28 (20.4)	0.647	30 (20.4)	29 (21.6)	0.8
Olanzapine	11 (7.3)	12 (8.8)	0.657	20 (13.6)	21 (15.7)	0.624
Quetiapine	6 (4)	5 (3.6)	0.877	6 (4.1)	6 (4.5)	0.87
Risperidone	8 (5.3)	4 (2.9)	0.308	17 (11.6)	12 (9)	0.473
Anti-histamines						
Promethazine	25 (16.7)	33 (24.1)	0.118	21 (14.3)	17 (12.7)	0.695

^{*}Chi-square test. **Medications that had an absolute frequency greater than five patients in at least one of the periods analyzed were presented in the table.

Regarding the total number of hospitalizations and of the length hospitalizations, there was statistical no significance between the evaluated periods. The median number of hospitalizations before and during the pandemic was 1 (IQ:1 and IQ:2), and the total length of hospitalizations (in days) before the pandemic differed from the period during the pandemic, being 30 (IQ:20 and IQ:47.75) and 23 (IQ:20 and IQ:47.5), respectively.

DISCUSSION

This study demonstrated that among patients undergoing treatment at CAPS III in Divinópolis during the pandemic, there was an increase in suicide attempts/suicidal ideation, as well as a higher occurrence of manic episodes and the use of antidepressants and antiepileptics, which are also used as mood stabilizers. Suicide attempts/suicidal ideation increased from 23.4 % before the pandemic to 33.8 % during the pandemic. These behaviors were associated with various factors, including loneliness, financial stress, stress symptoms, unemployment, positive COVID-19 test, younger age, psychoactive substance use, and a history of mental illness^{21,22}.

In a study conducted in the state of Piauí, more than 50 % of participants had suicidal thoughts, and 8.5 % attempted suicide. Studies conducted in other countries showed that suicidal ideation was present not only during the COVID-19²³ pandemic but also in other extreme

health situations such as the bubonic plague and the Spanish flu, mainly affecting economically vulnerable populations, women, and the elderly²⁴. These data reinforce the importance of psychosocial support, considering all dimensions of the individual, to be strengthened during crisis situations, especially among people with a history of mental disorder, as well as socially vulnerable populations, women, and the elderly, as these patients are more vulnerable to suicidal ideation.

However, despite the increase in suicide attempts and suicidal ideation, the study by Orellana and Souza (2022)²⁵ showed that in Brazil, actual suicides had an overall reduction of 13 % considering the 10 months evaluated in 2020. Soares et al. (2022)²⁶ observed that despite an expected increase in the suicide rate during the COVID-19 pandemic, it was shown that during the months of 2020, the temporal trend of suicide deaths remained stable. It was also observed²⁵ that although the overall population's suicide rates remained constant in the country during the pandemic, specific population segments showed an increase in this rate among women aged 30-59 years and in the North and Northeast regions of the country. Ornell et al. (2022)²⁷ also observed an increase in self-inflicted deaths among the elderly population and that low education and poor access to healthcare might be related to the increase in these rates.

Given that populations with a history of mental disorders were identified as potentially vulnerable, CAPS plays an important role as a tool for suicide prevention, especially in health crisis situations. Silva Junior et al. (2023)²⁸ conducted a

review addressing the most effective strategies for suicide prevention, ranging from public policies overcome unemployment, therapeutic practices such as cognitive-behavioral therapy, and innovative mental health practices. They also emphasized that health teams should master strategies to address suicidal behaviors and mental health emergencies, corroborating the importance of CAPS as strategies to tackle suicide. In this sense, it is also important to reinforce that integrated actions with Primary Care should include preventive measures that also consider other populations identified as vulnerable to these situations, as mentioned earlier.

Another point that may have contributed to the fact that suicide cases in Brazil did not increase during the COVID-19 pandemic is the likely beneficial effect caused by family coexistence due to isolation measures, considering the concern of being well enough to care for others and the feeling that everyone was going through the same problem²⁶.

Regarding the occurrence of manic episodes, some studies^{30,31} described two distinct cases of patients who presented manic symptoms after a COVID-19 diagnosis. In both cases, the patients had no history of mental disorders or family history and presented a more extroverted aspect, more energy than usual, signs of grandiosity, increased speech intensity, and motivation. The patients underwent a series of tests to rule out any underlying causes related to mania and required medication intervention to treat manic symptoms. The cause of mania may also be related to psychosocial stress in predisposed individuals, which could trigger an initial manic episode³². Russo et al. (2022)²⁹ observed that manic episodes might be an underestimated clinical presentation of COVID-19 infection, as 30 % of individuals (n=23)presented their first manic episode during COVID-19 infection.

Patients in this study were not investigated for COVID-19 infection, and it was also not possible to assess which patients had their first hospitalization during the pandemic period. It is noted that more robust studies are needed to evaluate whether there is a relationship between the occurrence of manic episodes and SARS-CoV-2 infection.

Antidepressants, benzodiazepines, and antipsychotics are used for the treatment of patients with mental disorders. These types of medications aim to modify mental processes and should be used according to the patient's individual diagnosis³⁵. Oxcarbazepine, belonging to the antiepileptic class, and also used off-label as a mood stabilizer, had its use increased during the pandemic at discharge (6 %), indicating that patients required the use of this medication to stabilize the condition prior to treatment discharge. It is worth noting that, although some studies already exist,^{36,37} this use as a mood stabilizer still requires further investigation.

Sertraline, an antidepressant from the selective serotonin reuptake inhibitor (SSRI) class, also saw an increase in use during the pandemic at the time of discharge (29.1%). Thus, it is clear that patients discharged from CAPS III during the pandemic needed medication to help reduce symptoms of sadness, distress, sleep and appetite changes, and negative thoughts. Barros and Silva (2023) and Lopes and collaborators found similar results, noting an increase in the use of antidepressants, especially from the SSRI class. Despite evidence showing increased use of antidepressants during the pandemic period in the general population, Amitriptyline showed higher consumption before the pandemic, contradicting the findings of other studies.

The total treatment period for patients during the pandemic decreased and may be related to the social distancing and health control measures adopted for CAPS operations. The use of face masks became mandatory, hygiene practices were heightened, social distancing was enforced, and group activities were restricted. These necessary measures may have led to a shorter duration of service for patients, although there was no significant difference compared to the pre-pandemic period.

Non-adherence to pharmacotherapy associated with irregular medication use decreased during the pandemic period (15.2%). Although the result is not statistically significant, this decrease may be related to the fact that most patients in the study lived with family members or relatives (88%), as with social isolation, the level of daily support for these patients may have increased. There is evidence that family support

can contribute to successful medication treatment, as family members are in a privileged position with the patient and can help by offering support, supervision in administering drugs, and motivation to stay in treatment.

This study pointed out a characteristic that Barros et al. (2020) had already described: females have a higher prevalence of complaints related to mental disorders, and because they are more attentive to signs and symptoms and concerned about their health, women end up seeking medical help more than men.

Although this study presents relevant findings, some limitations can be observed, such as incomplete data/records with outdated patient identification and sociodemographic data and limited information. It was also not possible to confirm information regarding the causes of death of the patients and assess whether there was a SARS-CoV-2 infection in patients admitted to CAPS III in Divinópolis.

PRACTICAL IMPLICATIONS

The results of this study have several important practical implications. Firstly, the identification of a significant increase in suicide attempts/suicidal ideation and manic episodes during the pandemic indicates the need to reinforce mental health services, especially in times of crisis. CAPS plays a crucial role in providing continuous support and treatment for individuals with severe and persistent mental disorders.

Additionally, the findings suggest the importance of developing and implementing early intervention strategies to prevent the worsening of mental symptoms during health crises. The use of medications such as antidepressants and mood stabilizers should be monitored and adjusted as necessary to meet the patients' needs. The promotion of mental health education programs for both healthcare professionals and the general population can help increase awareness and reduce the stigma associated with mental disorders. programs can also provide practical tools to help people cope with stress and anxiety. Finally, the results of this study can inform public policies and clinical guidelines, contributing to the improvement of mental health services and, consequently, to the promotion of health and well-being of the population.

CONCLUSION

It was possible to observe that the COVID-19 pandemic had an impact on the mental health of the population. The pandemic situation seems to have increased suicide attempts, suicidal ideation, and cases of manic episodes. There was also an increase in the use of antidepressants and medications with mood-stabilizing functions. In this sense, it is necessary to understand the pandemic as a broad phenomenon, with impacts that transcend the boundaries of physical health.

In extreme situations such as COVID-19, broad health measures should be considered, including mental health issues, aiming at the prevention of these conditions. Thus, CAPS plays a fundamental role in structuring these policies, as they are the coordinators of the psychosocial care network that structure mental health policy.

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REFERENCES

- 1 Silva HGN, Santos LES, Oliveira KA. Efeitos da pandemia do novo Coronavírus na saúde mental de indivíduos e coletividades. J Nurs Health. 2020;10(n.esp.): e20104007. https://doi.org/10.15210/jonah.v10i4.18677
- 2 Faro A, Bahiano MA, Nakano TC, Reis C, Silva BFP, Vitti LS. COVID-19 e saúde mental: a emergência do cuidado. Estudos de Psicologia (Campinas). 2020;37:e200074.

- https://doi.org/10.1590/1982-0275202037e200074
- 3 Ritchie H, Mathieu E, Rodés-Guirao L, Appel C, Giattino C, Ortiz-Ospina E, et al.
 Coronavirus Pandemic (COVID-19) Deaths
 [Internet]. Our World Data. 2023 [cited April 15, 2024]. Disponível em:
 https://ourworldindata.org/covid-deaths?country=~OWID_WRL#what-is-the-cumulative-number-of-confirmed-deaths
- 4 Ritchie H, Mathieu E, Rodés-Guirao L, Appel C, Giattino C, Ortiz-Ospina E, et al. Coronavirus Pandemic (COVID-19) Cases [Internet]. Our World Data. 2023. [cited April 15, 2024]. Disponível em: https://ourworldindata.org/covid-cases?country=~OWID_WRL#what-is-the-cumulative-number-of-confirmed-cases
- 5 Brasil. Ministério da Saúde. Painel Coronavírus [Internet]. 2023 [cited April 15, 2024]. Disponível em: https://covid.saude.gov.br/
- 6 Minas Gerais. Secretaria de Estado de Saúde. Boletim Epidemiológico Coronavírus [Internet]. 2023. [cited April 15, 2024]. Disponível em: https://coronavirus.saude.mg.gov.br/images/2 023/04/COVID-19_-_BOLETIM20230426.pdf
- 7 Duarte MQ, Santo MAS, Lima CP, Giordani JP, Trentini CM. COVID-19 e os impactos na saúde mental: uma amostra do Rio Grande do Sul, Brasil. Cien Saude Colet. 2020; 25(9):3401-3411. https://doi.org/10.1590/1413-81232020259.16472020
- 8 Costa SS. Pandemia e desemprego no Brasil. Rev Adm Pública. 2020;54(4):969-978. https://doi.org/10.1590/0034-761220200170
- 9 Kabad JF, Noal D da S, Passos MFD, Melo BD, Pereira DR, Serpeloni F, et al. A experiência do trabalho voluntário e colaborativo em saúde mental e atenção psicossocial na

- COVID-19. Cad Saude Publica. 2020;36. https://doi.org/10.1590/0102-311X00132120
- 10 Nunes de Torrenté MO, Marques TP, Torrenté M. Solidariedade, militância e saúde mental em tempos de pandemia. Interface -Comun Saúde, Educ. 2023;27:e220136. https://doi.org/10.1590/interface.220136
- 11 Oliveira CC, Ferreira AC, Querobino SM. Impactos da Pandemia de Sars-Cov-2 sobre a Saúde Mental: Levantamento epidemiológico sobre os atendimentos realizados em um hospital psiquiátrico no sudoeste mineiro / Impacts of the Sars-Cov-2 Pandemic on Mental Health: Epidemiological survey on the services provided in a psychiatric hospital in the southwest of Minas Gerais. ID line Rev Psicol. 2022;16(63):116-136. https://doi.org/10.14295/idonline.v16i63.353
- 12 12.Rossi R, Socci V, Pacitti F, Di Lorenzo G, Di Marco A, Siracusano A, et al. Mental health outcomes among healthcare workers and the general population during the COVID-19 in Italy. Front Psychol. 2020;11:608986. https://doi.org/10.3389/fpsyg.2020.608986
- 13 Czeisler MÉ, Lane RI, Petrosky E, Wiley JF, Christensen A, Njai R, et al. Mental health, substance use, and suicidal ideation during the COVID-19 pandemic United States, June 24-30, 2020. MMWR Morb Mortal Wkly Rep. 2020;69(32):1049–57. https://doi.org/10.15585/mmwr.mm6932a1
- 14 Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS, et al. Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. Int J Environ Res Public Health. 2020;17(5):1729. https://doi.org/10.3390/ijerph17051729
- 15 Brasil. Ministério da Saúde. Nota Técnica no 41/2020-CGMAD/DAPES/SAPS/MS Ministério da Saúde [Internet]. [cited March 4, 2024]Recuperado de:

- https://www.gov.br/saude/pt-br/assuntos/coronavirus/notas-tecnicas/2020/nota-tecnica-n-41-2020.pdf/view
- 16 Brasil. Ministério da Saúde. Saúde Mental no SUS: Os Centros de Atenção Psicossocial. Série F. Comun. e Educ. em Saúde [Internet] Brasília (DF): 2004. [citado 4 de março de 2024]. Disponível em: http://www.ccs.saude.gov.br/saude_mental/p df/SM_Sus.pdf.
- 17 FIOTEC. Você sabe o que são os Caps e como eles funcionam? Fiotec [Internet]. 2018. [cited March 4, 2024]Disponível em: https://www.fiotec.fiocruz.br/index.php/notici as/projetos/5324-voce-sabe-oque-sao-os-capse-como-eles-funcionam
- 18 Pereira TAB, Santos AO, Almeida AS, Dantas MIO, DeSantana JM. Influence of the COVID-19 pandemic on sleep quality, psychosocial aspects, and physical activity levels in patients with chronic pain in Brazil: COVID or cross-sectional study. Brazilian J Pain. 2024;7: e20230095. https://doi.org/10.5935/2595-0118.20230095-en
- 19 IBGE Instituto Brasileiro De Geografia E Estatística. Cidades e Estados | IBGE [Internet]. Divinópolis (MG): 2021. [cited March 4, 2024]. Disponível em: https://www.ibge.gov.br/cidades-eestados/mg/divinopolis.html
- 20 DATASUS. Classificação Estatística
 Internacional de Doenças e Problemas
 Relacionados à Saúde CID 10. F30-F39
 Transtornos do humor. [Internet]. [cited
 March 4, 2024]. Disponível em:
 http://www2.datasus.gov.br/cid10/V2008/Web
 Help/f30 f39.htm
- 21 Elbogen EB, Lanier M, Blakey SM, Wagner HR, Tsai J. Suicidal ideation and thoughts of self-harm during the COVID-19 pandemic: The role of COVID-19-related stress, social isolation, and financial strain. Depress

- Anxiety. 2021;38(7):739-748. https://doi.org/10.1002/da.23162
- 22 Rocha DM, Oliveira AC, Reis RK, Santos AMR, Andrade EMLR, Nogueira LT. Suicidal behavior during the COVID-19 pandemic: clinical aspects and associated factors. Acta Paul Enferm. 2022;35:eAPE02717. https://doi.org/10.37689/acta-ape/2022AO027177
- 23 O'Connor RC, Wetherall K, Cleare S, McClelland H, Melson AJ, Niedzwiedz CL, et al. Mental health and well-being during the COVID-19 pandemic: Longitudinal analyses of adults in the UK COVID-19 Mental Health & Wellbeing study. Br J Psychiatry. 2021;218(6):326-333. https://doi.org/10.1192/bjp.2020.212
- 24 Banerjee D, Kosagisharaf JR, Sathyanarayana Rao TS. 'The dual pandemic' of suicide and COVID-19: A biopsychosocial narrative of risks and prevention. Psychiatry Res. 2021;295:e113577. https://doi.org/10.1016/j.psychres.2020.11357
- 25 Orellana JDY, Souza MLP. Excess suicides in Brazil: Inequalities according to age groups and regions during the COVID-19 pandemic. Int J Soc Psychiatry. 2022;68(5):997-1009. https://doi.org/10.1177/00207640221097826
- 26 Soares FC, Stahnke DN, Levandowski ML. Tendência de suicídio no Brasil de 2011 a 2020: foco especial na pandemia de covid-19. Rev Panam Salud Pública. 2022;46:e212. https://doi.org/10.26633/RPSP.2022.212
- 27 Ornell F, Benzano D, Borelli WV, Narvaez JCM, Moura HF, Passos IC, et al. Differential impact on suicide mortality during the COVID-19 pandemic in Brazil. Braz J Psychiatry. 2022;44:628-634. http://doi.org/10.47626/1516-4446-2022-2581
- 28 Silva Junior AP, Silva Júnior FJG, Sales JCS, Monteiro CFS, Miranda PIG. Estratégias para prevenção e posvenção do suicídio em

- tempos de pandemia de Covid-19. Interface (Botucatu). 2023; 27: e230181. https://doi.org/10.1590/interface.230181
- 29 Russo M, Calisi D, De Rosa MA, Evangelista G, Consoli S, Dono F, et al. COVID-19 and first manic episodes: a systematic review. Psychiatry Res. 2022,214:e114677. https://doi.org/10.1016/j.psychres.2022.114677
- 30 Lu S, Wei N, Jiang J, Wu L, Sheng J, Zhou J, et al. First report of manic-like symptoms in a COVID-19 patient with no previous history of a psychiatric disorder. J Affect Disord. 2020;277:337-340. https://doi.org/10.1016/j.jad.2020.08.031
- 31 Alihsan B, Kashfi S, Roarke DT. First Manic Episode Following SARS-CoV-2 Infection. Cureus. 2023;15(1):e33986. https://doi.org/10.7759/cureus.33986
- 32 Del Casale A, Modesti MN, Rapisarda L, Girardi P, Tambelli R. Clinical Aspects of Manic Episodes After SARS-CoV-2 Contagion or COVID-19. Front. Psychiatry. 2022;13:e926084. https://doi.org/10.3389/fpsyt.2022.926084
- 33 Tariku M, Hajure M. Available evidence and ongoing hypothesis on corona virus (COVID-19) and psychosis: Is corona virus and psychosis related? a narrative review. Psychol. Res. Behav. Manag. 2020;13:701-704. https://doi.org/10.2147/PRBM.S264235
- 34 Garcez FB, Aliberti MJR, Poco PCE, Hiratsuka M, Takahashi S de F, Coelho VA, et al. Delirium and Adverse Outcomes in Hospitalized Patients with COVID-19. J Am Geriatr Soc. 2020;68(11):2440-2446. https://doi.org/10.1111/jgs.16803
- 35 Bizzo CVNF, Silva DC, Chambela MDC, Vasques LBL, Araújo GMN. A importância da atuação do profissional farmacêutico na saúde mental. Semioses. 2018;12(4):145-162. https://doi.org/10.15202/1981996x.2018v12n 4p145

- 36 Centorrino F, Albert MJ, Berry JM, Kelleher JP, Fellman V, Line G, et al. Oxcarbazepine: Clinical experience with hospitalized psychiatric patients. Bipolar Disord. 2003;5(5):370-374. https://doi.org/10.1034/j.1399-5618.2003.00047.x
- 37 Hirschfeld RMA, Kasper S. A review of the evidence for carbamazepine and oxcarbazepine in the treatment of bipolar disorder. Int J Neuropsychopharmacol. 2004;7(4):507-522. https://doi.org/10.1017/S1461145704004651
- 38 Barros JC, Silva SN. Perfil de utilização de psicofármacos durante a pandemia de COVID-19 em Minas Gerais, Brasil. Rev Bras Epidemiol. 2023; 26: e230059. https://doi.org/10.1590/1980-549720230059.2
- 39 Lopes JM, Nascimento FBR, Braga AO, Junior AVBS, Araujo SVL, Leite YKC. High use of psychotropic drugs during the COVID-19 pandemic: an analysis based on epidemiological surveys. Res Soc Dev. 2022;11(8):e47511831180. https://doi.org/10.33448/rsd-v11i8.31180
- 40 Piga BMF, Shima VTB, Romanich FMDF. Análise das prescrições de ansiolíticos e antidepressivos antes e durante a pandemia da COVID-19/ Analysis of prescriptions for anxiolytics and antidepressants before and during the COVID-19 Pandemic. Brazilian J Dev. 2021;7(11): 107178-107193. https://doi.org/10.34117/bjdv7n11-381
- 41 Del Fiol FS, Bergamaschi CC, Lopes LC, Silva MT, Barberato-Filho S. Sales trends of psychotropic drugs in the COVID-19 pandemic: A national database study in Brazil. Front Pharmacol. 2023;14: e1131357. https://doi.org/10.3389/fphar.2023.1131357
- 42 Vedana KGG, Miasso AI. A interação entre pessoas com esquizofrenia e familiares interfere na adesão medicamentosa? ACTA Paul Enferm. 2012;25(6): 830-836,

https://doi.org/10.1590/S0103-21002012000600002

43 Barros MBA, Lima MG, Malta DC, Szwarcwald CL, Azevedo RCS, Romero D, et al. Relato de tristeza/depressão, nervosismo/ansiedade e problemas de sono na população adulta brasileira durante a pandemia de COVID-19. Epidemiol e Serviços Saúde. 2020;29(4):e2020427. https://doi.org/10.1590/S1679-49742020000400018

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