EPIDEMIOLOGICAL PROFILE OF PATIENTS WITH SCHIZOPHRENIA IN THE NORTHEAST REGION

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ABSTRACT

To identify the number of psychiatric hospitalizations in patients with schizophrenia in the Northeast region and compare the patterns of these hospitalizations by state, age and sex, as well as to evaluate associated pathologies. This was a retrospective cross-sectional study using hospital information from the Unified Health System, referring to hospitalizations for schizophrenia in the Northeast region. Of the 370,434 cases of hospitalizations for schizophrenia in the country, the Northeast accounted for approximately 25% of the total number of hospitalizations. There was a higher prevalence in males (64%); approximately 36% of the hospitalized individuals were between 30 and 39 years old. The most common comorbidity was mood disorder (n = 148,474). The findings show that it is essential to provide information that elucidates the epidemiological variants related to schizophrenia, as well as psychiatric comorbidities.

Keywords: Comorbidity. Epidemiology. Schizophrenia. Hospitalization.

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INTRODUCTION

Mental disorders are an association of several diseases that represent functional impairments in the lives of their sufferers, with a high prevalence and increased incidence and diagnosis in recent years (KESSLER; RAN, p.7, 2019) [8]. Schizophrenia is a chronic neuropsychiatric disorder represented by psychotic symptoms, delusions, hallucinations, and cognitive deficits. It directly impacts the quality of life of patients and their families, as the distorted perception of reality leads to functional and social interaction impairment, as well as the stigmatization of the disease (BURRIEL et al., p. 1491, 2021) [4]. It is estimated that schizophrenia affects more than 21 million people worldwide, with the clinical picture usually originating between the second and third decades of life and can be triggered by genetic, environmental, and/or sociodemographic factors (SANCHEZ et al., p. 2, 2020) [15]. Given this, this pathology is included in the group of severe psychiatric disorders, often requiring multidisciplinary interventions, including hospitalizations, which are indicated when patients present decompensation of the condition, lack family/social support, and represent a danger to themselves and the individual around them (POSTOLACHE et al., p. 1, 2021) [12].

It is also noted that there are some predisposing factors involved in hospitalizations and a worse prognosis for patients with schizophrenia, such as the early onset of the disease and comorbidities present, mainly other psychiatric disorders (CHEN et al., p. 2, 2021) [5]. However, this form of treatment generates high costs, increases stigma, and may not fulfill its intended role, since the hospitalization locations are not always adequate in terms of care and hygiene (POSTOLACHE et al., p. 1, 2021) [12].

Schizophrenia spectrum disorder is an episodic disease, that is, it manifests itself through exacerbated symptoms followed by remission (KONINGS et al., p. 1, 2020) [9]. For this reason, patients with schizophrenia have low adherence to antipsychotic treatment, due to the cognitive impairment generated by the disorder itself, thus causing a serious problem of relapses during the disease and, consequently, favoring the increase in hospitalizations throughout life (LO et al., p. 15, 2021) [10]. Furthermore, according to J. Ahti et al., (2022, p. 10) [1], even with pharmacological treatment, only 1 in 7 patients with schizophrenia meets the recovery criteria. Given that schizophrenia is one of the main causes of disability worldwide, it is important to investigate its epidemiology and the harm it causes. Thus, the disorder is more common in men, while in women the disease tends to appear later (CHEN et al., p. 2, 2021) [5]. In Brazil, between 2000 and 2014, the second leading cause of hospitalizations in psychiatric institutions was due to schizophrenia, with males being the most affected, which is consistent with the epidemiological data presented in the literature.

In addition, it was observed that 7.7% of users died during hospitalization, an extremely worrying fact that raises questions about the conditions to which patients are subjected in these areas (ROCHA et al., p. 4, 2021) [13]. Given the complexity of schizophrenia, the disease is often associated with additional disorders; it is estimated that approximately 50% of schizophrenic patients have some psychiatric comorbidity. It is worth noting that the association between the disorders is related to a decrease in quality of life, worse prognosis, and increased morbidity and mortality of individuals (KESSLER; RAN, p. 8, 2019) [8].

In addition to psychiatric disorders concomitant with schizophrenia, these individuals also appear to have a higher incidence of other pathologies, which contributes to greater morbidity and mortality, since the stigmatization of schizophrenia generates feelings of withdrawal on the part of patients, reducing health care. Thus, a large part of the population with this diagnosis has difficulty seeking medical help outside the psychiatric field, taking into account that many health professionals have a prejudiced view of these users, which can even lead to diagnostic obfuscation. Furthermore, other factors such as waist circumference, BMI, and obesity can be strongly correlated with serious mental disorders, leading to a worsening of health and, therefore, lower quality of life (LUCIANO et al., p.1, 2021) [11].

Therefore, the present study aims to characterize the profile of psychiatric hospitalizations due to schizophrenia in the northeast region by sex, age, and state, as well as to evaluate the main associated disorders, thus generating a significant contribution to epidemiological studies on the subject.

Table 1 – Number of Hospitalizations for Schizophrenia by State and Sex in the Northeast Region between January 2018 and May 2023.

States	Male Sex	Female Sex
Alagoas	5,952	3,656
Bahia	6,557	4,007
Ceará	12,299	7,257
Maranhão	8,764	3,637
Paraíba	5,756	3,635
Pernambuco	6,816	3,934
Piauí	3,893	1,858
Rio Grande do Norte	5,581	2,895
Sergipe	1,911	1,128
Source: Adapted from the SUS Information Department (DATASUS).		

Table 2 – Number of Hospitalizations for Schizophrenia in the Northeast Region Associated with Substance Use Disorders and Mood Disorders between January 2018 and May 2023.

States	Substance Use Disorders	Mood Disorders
Alagoas	14,745	11,658
Bahia	18,646	24,879

Ceará	29,814	37,563
Maranhão	19,851	18,464
Paraíba	14,865	13,523
Pernambuco	23,579	16,071
Piauí	10,911	8,845
Rio Grande do Norte	11,321	13,125
Sergipe	4,274	4,346
Source: Adapted from the SUS Information Department (DATASUS).		

Figure 1 – Result of hospitalizations for schizophrenia by age in the Northeast region
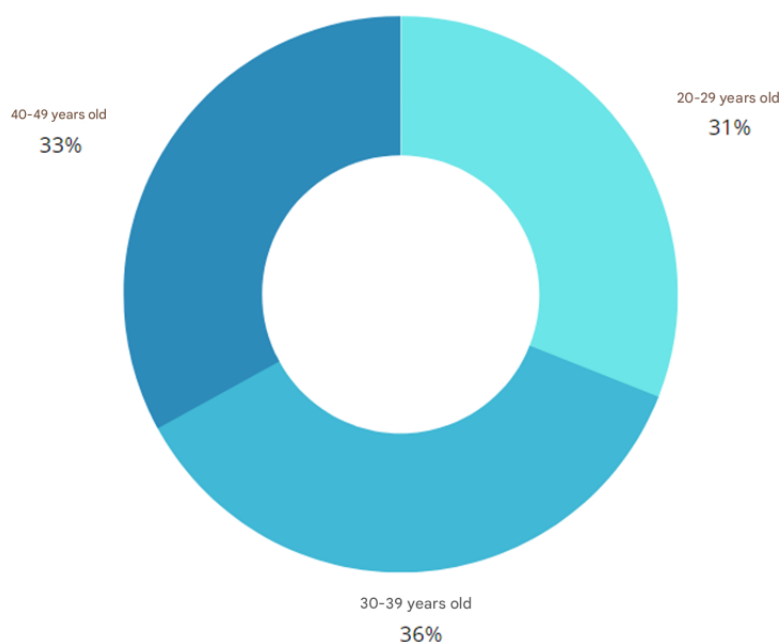
Source: Adapted from the SUS Information Technology Department (DATASUS).

Figure 2 - Results of hospitalizations due to schizophrenia by state and age in the Northeast region
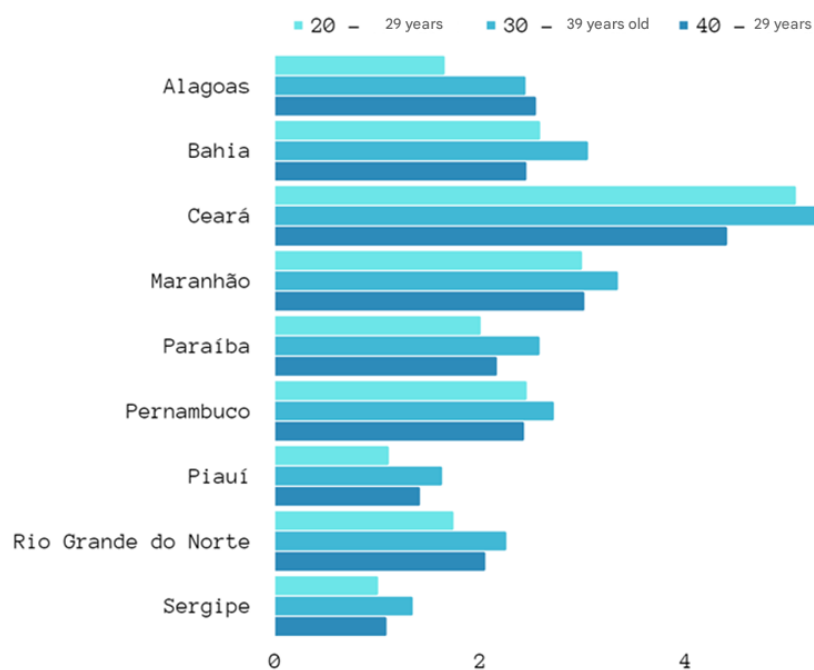
Source: Adapted from the SUS Information Technology Department (DATASUS).

METHODOLOGY

This is a retrospective cross-sectional study with an epidemiological approach, through the collection of secondary data from the SUS hospital information system (SIH/SUS). The information base used was the numbers related to hospital morbidity from the SUS, that is, the total number of hospitalizations due to schizophrenia in the northeast region. Regarding the time interval evaluated, the period between January 2018 and May 2023 was used.

Data collection was carried out directly by the SUS IT department (DATASUS), using the TABNET application. This agency disseminates health information in a free and organized manner; thus, the data acquired on hospital morbidity aims to show the health problems of individuals with schizophrenia, as well as to compare the pattern of these hospitalizations, with regard to sex, age and associated comorbidities.

The categories considered for this study were: states (Alagoas; Bahia; Ceará; Maranhão; Paraíba; Pernambuco; Piauí; Rio Grande do Norte; Sergipe), sex (female; male), age (20 to 29 years; 30 to 39 years; 40 to 49 years) and concomitant conditions (mood disorders; substance use disorders). Furthermore, to expand and explain the data found, the PubMed digital platform was used as a theoretical reference, where the descriptors "schizophrenia", "hospitalizations" and "epidemiology" were used, combined with the Boolean operator AND. Thus, a total of 416 articles were found, while the following inclusion criteria were used: timeline of the last 5 years and free full texts; 64 results were found. Finally, articles that were not aligned with the thematic axis were used as exclusion criteria, resulting in 19 studies used for this research.

RESULTS

According to data provided by DATASUS, Brazil recorded 370,434 cases of hospitalizations due to schizophrenia between January 2018 and May 2023; the number of hospitalizations in the northeast region represented approximately 25% of the total number of hospitalizations in the country, second only to the southeast region, which totaled 41%.

In general, males accounted for 64% of hospitalizations; in no state in the northeast region was there a predominance of females (n = 32,007, 36%) in hospitalizations; the state of Ceará had the highest number of hospitalizations in the region for both sexes (n = 19,556, 21.8%).

That said, the second place with the highest number of hospitalizations were the states of Maranhão and Bahia, because there was a variation between the sexes, male (n = 8,764, 9.7%) and female (4,007, 4.5%), respectively. Pernambuco occupied the third place

in the ranking of hospitalizations, both in males (n = 6,816, 7.6%) and females (n = 3,934, 4.4%), in contrast to Sergipe, which constituted, in these 5 years researched, the state with the lowest number of hospitalizations for schizophrenia (n = 3,039, 3.4%). When dividing hospitalizations for schizophrenia by state and age between 20 and 49 years old, the same general pattern of predominance in individuals aged 30 and 39 years old (n = 24,127, 36%) was observed, except for the states of Alagoas and Sergipe; in Alagoas, the age group of 40 and 49 years old predominated in both sexes (n = 2,538), while in Sergipe, only females (n = 341) prevailed in the age range of 40 and 49 years old.

Mood disorder (n = 148,474) was the slightly larger comorbid disorder in the region than substance use disorder (n = 148,006); Ceará was also the state that achieved the highest rates of hospitalizations for associated pathologies (n = 67,377, 22%). Bahia, once again, ranked second with the highest number of hospitalizations (n = 43,525, 14%), and it is worth remembering that Bahia has the largest territorial extension, as well as being the most populous state in the northeast region.

Followed by Bahia, Pernambuco is the second most populated state in the region and reached third place in the number of associated pathologies (n = 39,650, 13.4%). Maranhão narrowly missed out on Pernambuco (n = 38,315, 12.9%); Paraíba, Alagoas, and Rio Grande do Norte also reached similar numbers: 28,388 (9.5), 26,403 (8.9) and 24,446 (8.2), respectively. Finally, Sergipe (n = 8,620) represented only about 3% of the number of hospitalizations due to comorbid disorders.

DISCUSSION

It is known that psychiatric treatment has undergone favorable changes over the years, with long-term hospitalization being replaced by shorter hospitalizations with a preference for individualized pharmacological treatment (Barbosa et al., p. 1075, 2023) [3]. However, the divergence between hospital care, outpatient care, and the educational and socioeconomic level of patients often leads to changes in hospitalization patterns (Stralin; Skott; Cullberg, p. 1371, 2020) [18]. Thus, mental health in Brazil is still quite neglected and since schizophrenia is a condition that causes serious functional impairments, it is necessary to increase research on the proportion of these hospitalizations. Among psychiatric disorders, schizophrenia is among the diseases that most frequently cause hospitalizations; in a study of various mental disorders, schizophrenic patients accounted for more than 90% of long-term hospitalizations compared to other disorders (Han et al., p. 9, 2021) [6]. In addition to the high number of hospitalizations, care after hospital discharge is usually not sufficient to prevent relapses (Rotenberg, et al., p. 12, 2023) [14]. Given this,

the last 5 years of research have revealed that the rates of psychiatric hospitalizations for schizophrenia in the Northeast change discreetly, but remain high, which means that the region lacks interventions and mental health programs aimed at the public. The predominance of males among hospitalizations corroborates studies that show that schizophrenia is more prevalent among men and that the course of the disease tends to be more severe in this gender. For example, a study conducted in Austria showed that of the 110,735 hospitalizations for schizophrenia, 59.6% of cases were male (Hinterbuchinger et al., p. 3, 2020) [7].

In the Northeast region, about a fifth of hospitalized patients were from Ceará, even though it is not the largest and most populous state in the region, while Sergipe had a very low number of hospitalizations. Given the above, it is possible to state that the incidence of schizophrenia is inconsistent since the literature indicates that there is a fluctuation in occurrences of 8 to 43 per hundred thousand individuals (Sanchez et al., p. 2, 2020) [15].

Furthermore, it is known that individuals in early adulthood tend to be more affected by schizophrenia, with the age group between 30 and 39 years old being the most affected by hospitalizations in the Northeast region. Thus, the impact of this pathology on public health is notable due to the great need for care, inferring numerous expenses regarding treatment, especially for younger patients, between 18 and 39 years old (Stewart et al., p. 729, 2022) [17].

Several agents influence the occurrence and severity of schizophrenia, such as gender, age, socioeconomic factors, and place of residence, among others. Thus, psychiatric disorders comorbid with schizophrenia are highly prevalent, such as mood disorders, especially bipolar affective disorder (BAD). Schizophrenia and BAD, despite configuring distinct pathologies, demonstrate peculiarities in common and can coexist and, consequently, cause increased morbidity. Thus, both disorders manifest a low quality of life, which is a risk factor for possible exacerbations of the condition; thus, improving this aspect should constitute one of the pillars of therapy and prevention of relapses (Stentzel et al., p. 2, 2021) [16].

In addition, substance use disorders are also common among individuals with schizophrenia, such as the abuse of alcohol or other legal and illegal drugs (Vadukapuram et al., p. 2, 2020) [19]. In this scenario, studies show that individuals with psychotic disorders have a risk three times greater than the general population of developing alcohol use disorders (Archibald et al., p. 2, 2019) [2]. Globally, cannabis is the substance most commonly consumed by these patients, which both increases the risk of developing schizophrenia by six times and may also be a contributing factor to worsening symptoms,

since medication adherence rates plummet with cannabis dependence (Vadukapuram et al., p. 7, 2020) [19].

Thus, it is observed that in most states in the Northeast region, the prevalence of hospitalizations due to schizophrenia is linked to substance use disorders. However, BD also has a major influence on hospitalizations, since it is accompanied by major emotional fluctuations, predisposing to a series of behavioral changes that increase the need for hospital interventions (Kessler; Ran, p. 8, 2019) [8]. According to the Brazilian Institute of Geography and Statistics (IBGE), the Northeast is the second most populous region in the country, home to approximately 28% of Brazilians, a fact that justifies the large number of hospitalizations due to schizophrenia in the region. In addition, the region's Human Development Index (HDI) is considered average, which denotes the strong social inequality that exists in the area, reinforcing that socioeconomic level is a predictor of poor prognosis in the course of schizophrenia.

CONCLUSION

Therefore, given the above, it is evident that there is a need to adopt effective public policies aimed at protecting the mental health of patients with schizophrenia, and it is essential to provide information that elucidates the epidemiological variants. Logics present in this disease. Furthermore, it is necessary to reinforce the importance of carrying out further studies regarding psychiatric comorbidities related to schizophrenia, since this association is very common, in addition to making the psychopathology more severe.

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