

Program in Rehabilitation Sciences at Faculty of Ceilândia (UnB), and CAPES, as the funding agency.

Ethics committee approval: Not reported.

<https://doi.org/10.1016/j.bjpt.2024.100719>

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ASSOCIATION BETWEEN AGE AND HOSPITALIZATION IN INTENSIVE CARE UNITS OF PATIENTS WITH CEREBRAL PALSY IN BRAZIL

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Background: Cerebral Palsy (CP) is a non-progressive neurological disorder resulting from brain injury that can occur prenatally, perinatally or postnatally; being the most common physical disability of childhood. Patients with CP may need assistance in Intensive Care Units (ICUs) at different stages during their development, due to the worsening of conditions with the presence of associated conditions, for example, convulsive syndrome and respiratory diseases, such as respiratory failure and pneumonia. Changes in tone and posture, frequent in patients with CP, impair lung function, making respiratory conditions responsible for most ICU admissions and for the morbidity and mortality rate in this population.

Objectives: Verify the association between the frequency of admissions in Intensive Care Units and age groups in patients with Cerebral Palsy through the Unified Health System (SUS).

Methods: The study was developed based on data from the Ministry of Health's Hospital Information System on inpatient admissions by the SUS at the national level for the years 2015 to 2019. The patient's age and indication of ICU use were obtained. Ages were grouped into groups of age groups, according to the grouping used by the Brazilian census. Data were analyzed using the R software. A chi-square test of independence was applied, with standardized residuals adjusted and significance level correction. Cells with statistically significant differences were those that had adjusted standardized residues outside the adjusted limits.

Results: The chi-square test of independence showed that there is an association between age group and ICU use in patients with CP ($X(17) = 5,083.8$; $p < 0.001$; Cramér's $V = 0.342$). The analysis of the adjusted standardized residuals showed that there are more cases of ICU use in the age groups up to 14 years, especially up to 1 year of age; and fewer cases in the age groups between 15 and 49 years. The frequency of patients with CP who are aged up to 14 years and use the ICU is higher than the expected frequency, therefore indicating that there is an association between the two variables. In the age groups from 15 to 49 years old, the opposite happens, the frequency of patients using the ICU is lower than expected. In patients aged over 65 years, this frequency is again higher, but without statistical significance.

Conclusions: Age is a variable that is associated with a higher frequency of admissions to the intensive care unit of patients with CP, and the younger the age, the greater the number of admissions.

Implications: Since hospitalizations and clinical complications of patients with CP can be caused by multiple etiologies, in line with the variety of possible associated conditions, and that this factor complicates the process of diagnosing/monitoring them, the importance of health care of these patients is emphasized at early age, as well as the relevance of early diagnosis/intervention to prevent hospitalization and worsening of the condition.

Keywords: Cerebral Palsy, Unified Health System, Intensive Care Units

Conflict of interest: The authors have no conflicts of interest to declare.

Acknowledgment: The authors wish to thank the Postgraduate Program in Rehabilitation Sciences at Faculty of Ceilândia (UnB), and CAPES, as the funding agency.

Ethics committee approval: Not reported.

<https://doi.org/10.1016/j.bjpt.2024.100720>

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PRESENCE OF MULTIMORBIDITY AMONG ADULTS WITH CHRONIC BACK PAIN IN BRAZIL, NATIONAL HEALTH SURVEY 2019

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Background: Chronic back pain (CBP) is a worldwide health problem. Recent evidence points to the coexistence of CBP with other comorbidities, configuring a scenario of multimorbidity. However, the impact of multimorbidity on patients with CBP is still unclear.

Objectives: To investigate existing differences in levels of activity limitation due to CBP, self-rated health status and use of health services among adults with CBP with and without multimorbidity.

Methods: Cross-sectional study with data from adults (≥ 18 years) who self-reported having CBP ($n=18930$) in the National Health Survey 2019. Multimorbidity was defined by the presence of one or more chronic diseases in addition to CBP. Data related to sociodemographic variables (gender, body mass index (BMI)), activity limitation (scale 1-5 points: "not limit" = no limitation and "little", "moderate", "intense" and "very intense" = with limitation), self-rated of health status (scale 1-5 points: "very good", "good", "regular" = positive perception and "poor" and "very poor" = negative perception), use of health services in the last 15 days and of hospitalization in the last 12 months (yes or no) were collected. Differences in proportions (SD) between groups and respective confidence intervals (95%CI) were calculated for sociodemographic and health indicators. Chi-square test was used to determine significant differences ($p > 0.05$) between groups.

Results: Of the total 18930 adults with CBP, 12,832 (69.4%) reported having multimorbidity. Most adults with CBP and multimorbidity were women (SD=19.4%, 95%CI: 17.9-20.89) people with obesity (BMI $> 30\text{kg/m}^2$) (SD=11.3%, 95%CI: 10.04-12.55), higher activity limitation (SD=14.4%, 95%CI: 12.93-15.86), worse health status (SD=10.3%, 95%CI: 9.4-11.2), higher use of health services in the last 15 days (SD=17.1%, 95%CI: 15.7-18.4) and more frequent hospitalization in the last 12 months (SD=6.4%, 95%CI: 5.6-7.2) when compared to adults with CBP but without multimorbidity.

Conclusion: About 7 out of 10 adults with CBP have multimorbidity. Adults with CBP and multimorbidity are mostly women, usually obese, reported having more activity limitations, worse health status and recently seeking care at health services.

Implications: Multimorbidity is prevalent in the CBP population and must be considered during evaluation and treatment.

Keywords: Back pain, Multimorbidity, Brazil

Conflict of interest: The authors declare no conflict of interest.

Acknowledgment: The study was supported by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES).

Ethics committee approval: Brazilian Committee on Ethics in