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Ethnoracial disparities and social vulnerability in headache hospitalizations in Brazil

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Introduction
Social determinants of health exert a profound impact on the pathogenesis and prognosis of chronic diseases in Brazil. In the context of primary pain syndromes, such as migraines, it is known that access to specialized outpatient care and continuous medication prophylaxis is unequal. Factors associated with structural racism, such as precarious working conditions, lower labor flexibility, and barriers to accessing private specialists, act as triggers for crisis chronification. Consequently, historically vulnerable populations are frequently pushed into the hospital emergency network as their sole avenue for relief and therapeutic rescue.

Objective
To analyze the ethnoracial profile of patients admitted with a primary diagnosis of headache and migraine in the Brazilian Public Health System (SUS) between 2019 and 2023, seeking to highlight potential disparities in the access and utilization of neurological emergency beds.

Methods
This is an epidemiological, retrospective, descriptive, national-based study built from the microdata of the Hospital Information System (SIH/DATASUS). Cohort processing occurred in R language (microdatasus package), filtering all Hospital Admission Authorizations (AIHs) in Brazil from 2019-2023 under ICD-10 codes G43 and G44. The main stratification variable was self-declared race/color, categorized according to the Brazilian Institute of Geography and Statistics (IBGE) standards.

Results
Out of the 51,214 admissions mapped in the period, 6,389 records (12.4%) had no data for the race/color field, evidencing a persistent flaw in hospital notification. Among the 44,825 patients with valid information, the mapping revealed a significant predominance of the self-declared Brown (Parda) population, leading the records with 22,628 admissions. This was followed by the White population (n=19,326), the Black population (n=1,538), the Asian population (n=1,285), and the Indigenous population (n=48). When grouping the Brown and Black categories, it is observed that the Black population represents the vast absolute majority of admissions with known racial data (n=24,166), consolidating itself as the demographic group most dependent on hospital beds for pain control.

Conclusion
The predominance of admissions among brown and black patients exposes the face of socioeconomic vulnerability in accessing preventive neurological healthcare. The high volume of admissions from this population stratum indicates that the emergency room is acting as a safety net for structural failures in primary and secondary care. Public policies aimed at managing primary headache syndromes must incorporate racial literacy, ensuring that screening, prophylactic treatment, and pain education effectively reach the most vulnerable populations before the condition progresses to the need for bed occupancy.

Keywords:
Social determinants of health
Healthcare disparities
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