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Background

Brain MRI is recommended as a first-line investigation for etiological diagnosis in dementia¹

However, access to MRI in low and middle-income countries (LMICs) remains limited, with scarce real-world data from public memory clinics. We assessed MRI access and its clinical correlates in a Brazilian public outpatient cohort.

Methods

We analyzed 203 individuals evaluated for cognitive complaints in a public memory clinic.

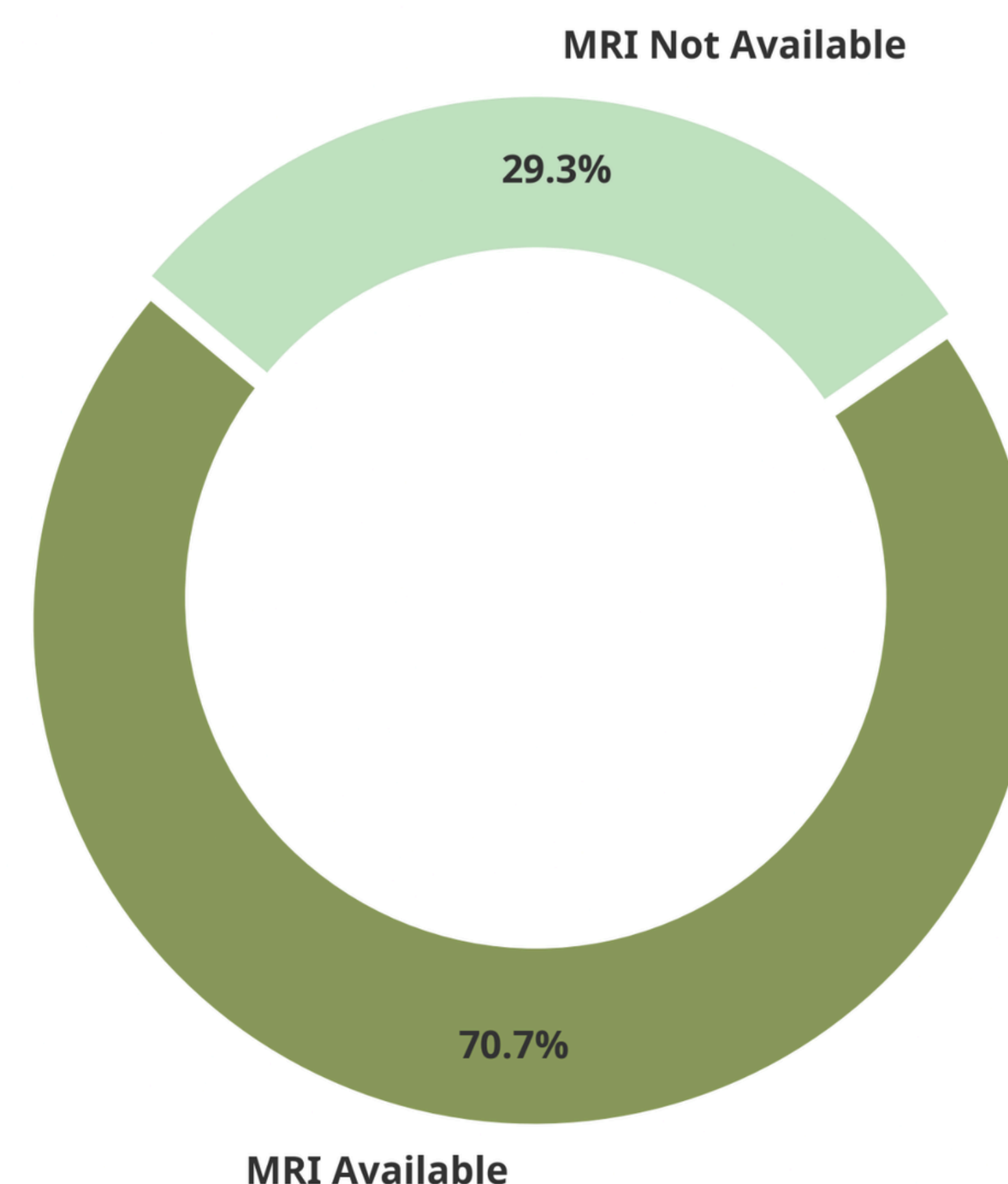
MRI availability was classified as present vs. absent. Demographics (age, sex, schooling), Mini-Mental State Examination (MMSE) scores and diagnostic categories were examined using standard univariate tests.

Multivariable logistic regression assessed independent predictors of MRI access; sensitivity analyses excluded mild cognitive impairment (MCI).

A predefined subgroup of patients fulfilling criteria for Alzheimer's disease (AD) constituted an analytic cohort (n=41), with additional regressions adjusting for age, sex, schooling, duration of symptoms and functionality (Katz Index). Robust Poisson models were used for consistency checks.

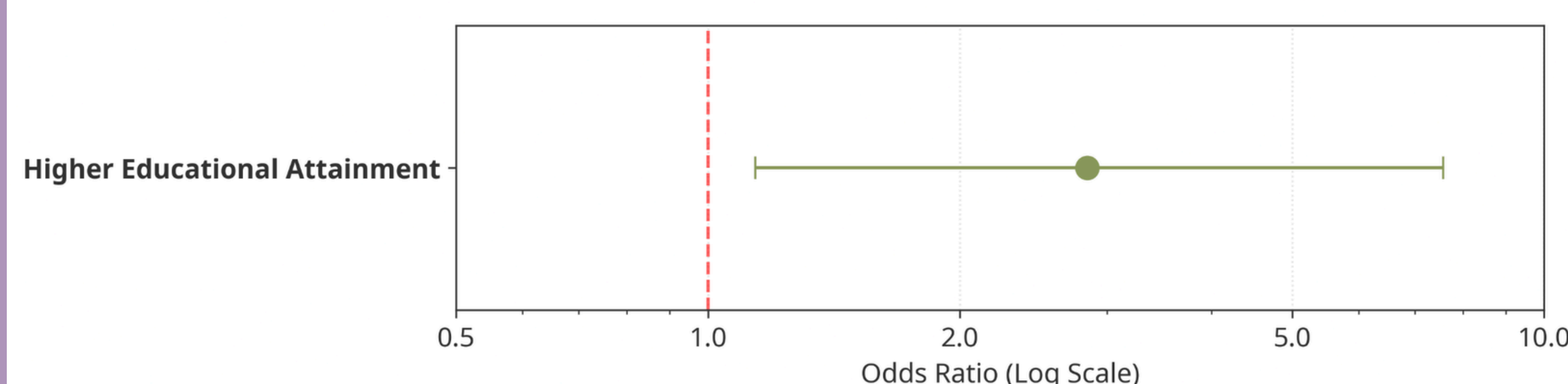
Results

Brain MRI Access in Alzheimer's Disease Patients (n=41)

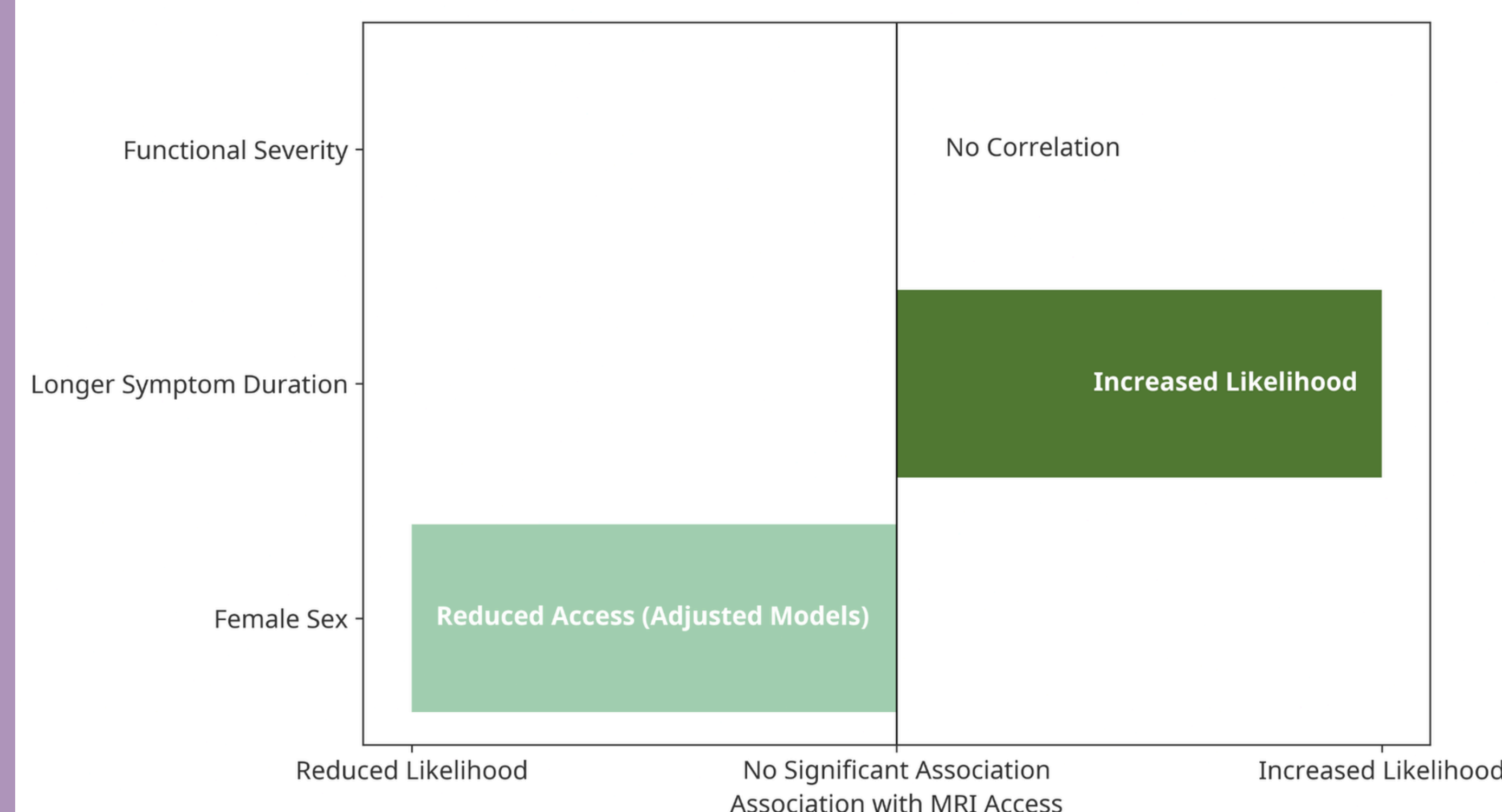


OR 2.84 (95% CI 1.14-7.57)

Independent Predictors of MRI Access (Multivariable Analysis)



Clinical Correlates of MRI Availability in AD Patients



Conclusions

MRI access was incomplete and influenced by socioeconomic and demographic factors, particularly education and sex.

Imaging tended to occur at later disease stages², suggesting diagnostic delays.

Structural limitations in LMIC public systems may hinder adherence to guideline-based dementia workup and contribute to inequities in etiological diagnosis.

References

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2. FRISONI, G. B. et al. The clinical use of structural MRI in Alzheimer disease. *Nature Reviews Neurology*, v. 6, n. 2, p. 67–77, fev. 2010.

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