

Predictors of Mild Cognitive Impairment with and without Memory Impairment across the United States, Mexico, and India



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Background

- Characterizing mild cognitive impairment (MCI) into cognitive subtypes (i.e., with and without memory impairment) may improve the identification of individuals at greater risk of developing dementia.
- Most knowledge regarding risk factors and prognosis for MCI comes primarily from high-income countries.
- Little is known about MCI in low-and middle-income countries.
- A global approach to the study of MCI is needed to advance the understanding of ADRD.

Aims & Hypotheses

To examine the sociodemographic and health predictors of prevalent MCI with and without memory impairment (MI) cross-nationally.

Methods

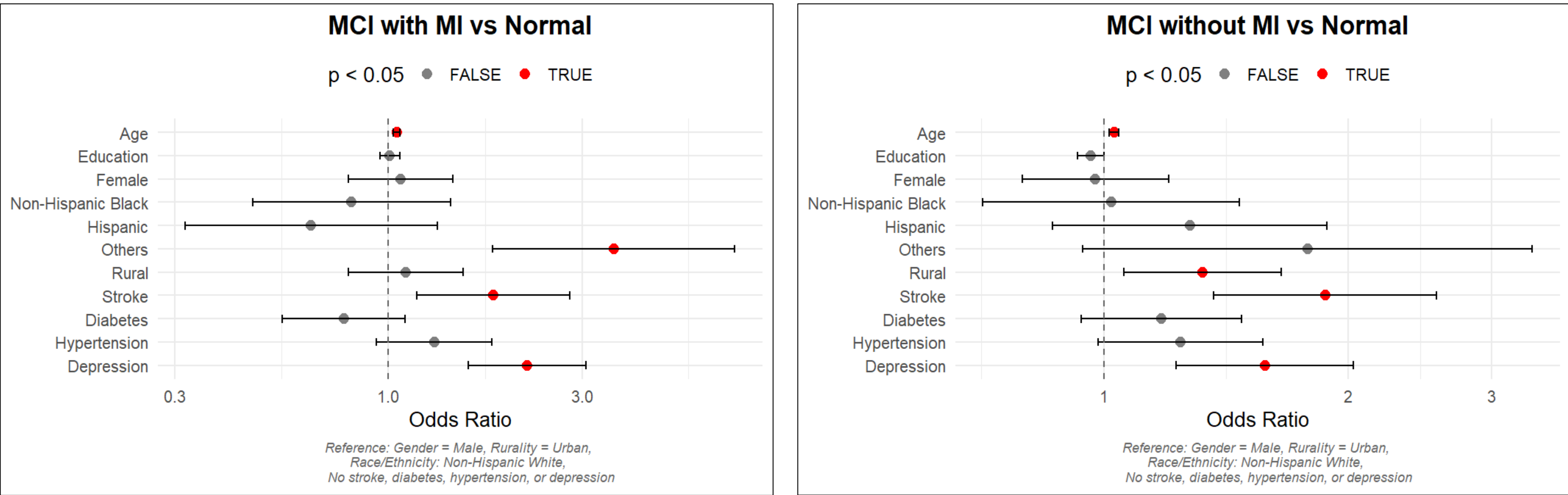
- Participants are non-demented older adults from the Harmonized Cognitive Assessment Protocol (HCAP) Network studies in the US, Mexico, and India.
- Harmonized algorithmic classifications of MCI were created using data from a comprehensive cognitive battery and informant interview.
- Analyses were conducted using weighted multinomial logistic regression models.

Table 1. Cross-national MCI Risk Factors

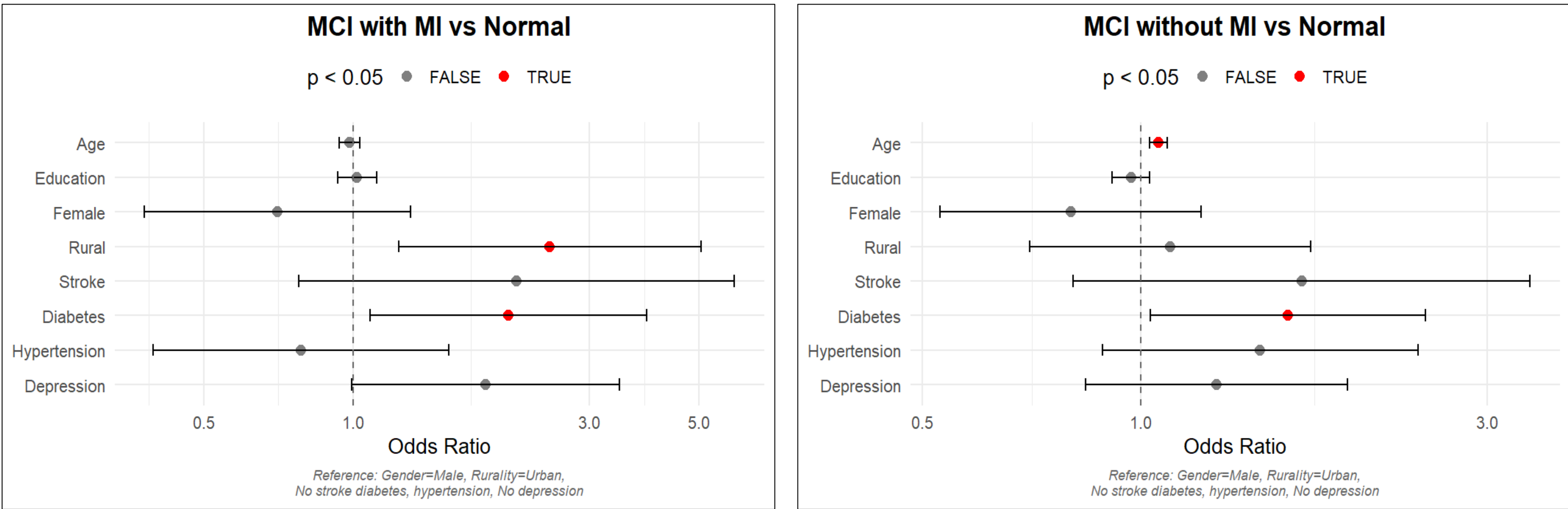
	us HRS-HCAP			mx Mex-Cog			in LASI-DAD		
Variable	Normal	MCI with MI	MCI without MI	Normal	MCI with MI	MCI without MI	Normal	MCI with MI	MCI without MI
Age	75.2	77.8	77.1	73.2	73.4	76.3	71.9	73.6	72.2
M(SD)	(7.1)	(7.8)	(7.9)	(6.6)	(7.2)	(7)	(6.5)	(7.7)	(5.9)
Education	13	13.1	11.9	4.4	3.7	3.3	3.7	3.7	5
M(SD)	(2.9)	(2.6)	(3.9)	(4.2)	(3.6)	(3.8)	(4.7)	(4.5)	(4.8)
Female	1375	137	349	497.2	23.7	65.5	1034	235	83
n(%)	(59.4%)	(60.4%)	(60.1%)	(57.9%)	(48.5%)	(53.6%)	(53%)	(49.2%)	(44.1%)
Urban	1682	162	413	539.9	20.7	67.1	782	159	61
n(%)	(72.8%)	(71.4%)	(71.1%)	(62.9%)	(42.2%)	(54.8%)	(40.1%)	(33.3%)	(32.4%)
Stroke	196	35	111	37.6	5.1	12.2	52	20	6
n(%)	(8.5%)	(15.4%)	(19.1%)	(4.4%)	(10.5%)	(10%)	(2.7%)	(4.2%)	(3.2%)
Diabetes	642	65	219	226.3	18.8	44.9	348	69	35
n(%)	(27.8%)	(28.6%)	(37.7%)	(26.3%)	(38.5%)	(36.7%)	(17.9%)	(14.5%)	(18.7%)
Hypertension	1584	165	444	577.6	33.4	97.5	827	173	69
n(%)	(68.5%)	(72.7%)	(76.4%)	(67.3%)	(68.3%)	(79.7%)	(42.6%)	(37.3%)	(36.9%)
Depression	363	61	141	310.3	23.4	52.5	559	163	51
n(%)	(16.1%)	(27.1%)	(27.2%)	(36.4%)	(50.4%)	(45.6%)	(29.3%)	(35.6%)	(28.7%)

Results

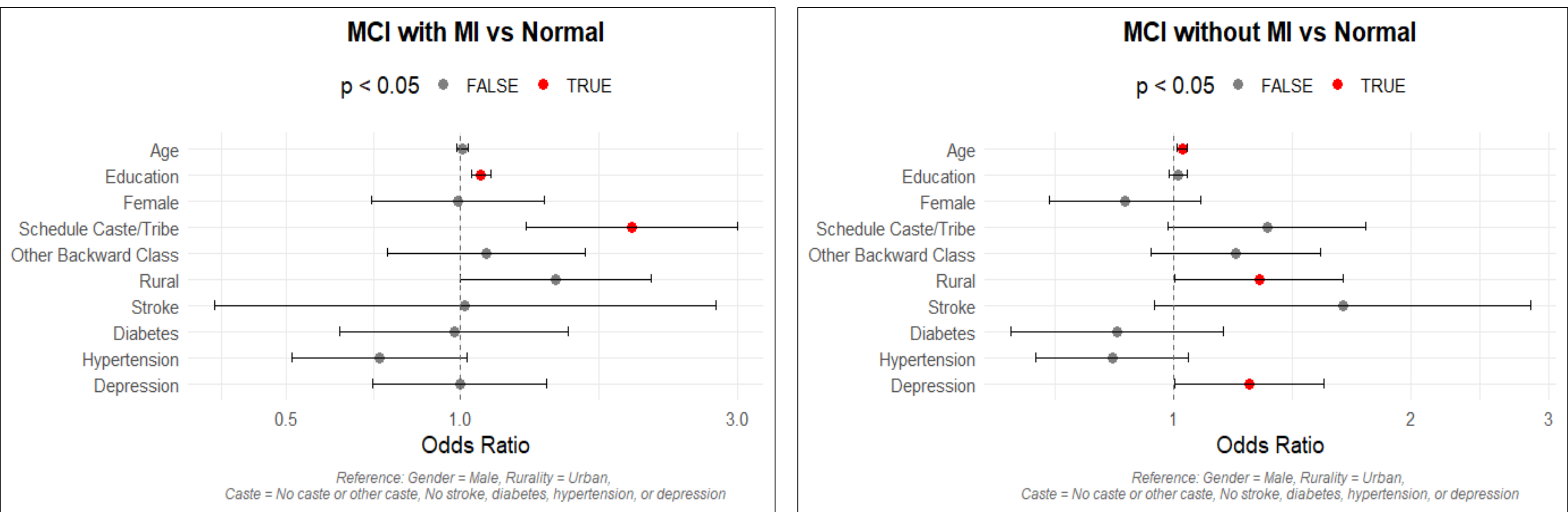
us United States: HRS-HCAP us



MX Mexico: Mex-Cog MX



IN India: LASI-DAD IN



Conclusions

- Across the US, Mexico, and India, leveraging harmonized data from the HCAP Network and our harmonized algorithmic classifications, we identified both country-specific and country-independent risk factors of MCI by subtype.
- Differential associations may be driven by the unique sociocultural and health infrastructure contexts of each country. Longitudinal analyses will evaluate how these factors influence risk of incident dementia cross-nationally.

Acknowledgements

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