

Gender specific risk factors associated with dementia in India: Insights from a nationally representative cohort

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In LASI-DAD (n=4,096), overall DSM-5 NCD prevalence did not differ by sex, but risk factor profiles were sex-specific. Men: anxiety independently associated with mild NCD (OR=3.30, 95% CI 1.25–8.74). Women: underweight status independently associated with mild NCD (OR=2.93, 95% CI 1.13–7.58). Rural residence and low education were consistent risk factors for major NCD in both sexes.

INTRODUCTION	METHODS	RESULTS	CONCLUSIONS	REFERENCES
Dementia is a debilitating neurological disorder and a major public health priority. Age is the strongest known non-modifiable risk factor for dementia. Gender is another important non-modifiable risk factor that may be valuable for targeted dementia risk reduction efforts. The objective of our study is to examine gender-specific prevalence and the effect of risk factors associated with cognitive impairment.	Data from Wave 1 of a nationally representative cohort study, Harmonized Diagnostic Assessment of Dementia for the Longitudinal Aging Study in India (LASI-DAD) (2017–2019; n=4,096), were used for this analysis. Neurocognitive disorder (NCD) was classified according to DSM-5 criteria, with participants categorised as cognitively normal, mild NCD, or major NCD. In our multinomial logistic regression analysis, we implemented two separate models: a model adjusted for age and a fully adjusted model that incorporated all variables found to be statistically significant in the first model in addition to age.	Of 4,096 participants, 46.1% were male, and 53.9% were female. The distribution of mild or major NCD diagnosis did not differ significantly by sex (p=0.077). In the multiple risk factor model, in men, only anxiety remained significantly associated with mild NCD [OR (95% CI) =3.30 (1.25–8.74); p=0.016], while in women, being underweight was independently associated with mild NCD [OR (95% CI) = 2.93 (1.13–7.58); p=0.027]. Rural residence and lower education were consistently linked to higher odds of major NCD in both sexes.	Our findings suggest that the determinants of late-life cognitive impairment are sex-dependent and multifactorial, with psychological factors such as anxiety appearing more salient for men, whereas nutritional vulnerability is more relevant for women. Interventions to reduce cognitive decline may therefore need to be sex-specific.	Lee J, Phillips D, Wilkens J, et al. Introduction to the Longitudinal Aging Study in India-Diagnostic Assessment of Dementia: Structure, Design, Participants, Measures, and Baseline Findings. J Aging Health. 2019;31(9):1557-1580. Gross AL, et al. Prevalence of DSM-5 mild and major neurocognitive disorders in India (LASI-DAD). Alzheimers Dement. 2024;20(5):3456-3465. Angrisani M, Reed NS, Banerjee J, Lee J. Dementia caregiving in India: New evidence from a National Longitudinal Study. Alzheimers Dement. 2024;20(6):4025-4034. Angrisani M, Jain U, Lee J. Sex differences in cognitive health among older adults in India. J Am Geriatr Soc. 2020;69(1):105-113. Mostert SP, Davis-Plourde K, Grodzicki M, et al. Dementia risk prediction models in low- and middle-income countries: A systematic review. Lancet Reg Health Southeast Asia. 2025;22:100345.
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