

Prevalence and factors associated with mild cognitive impairment in older adults in Kerala, India: Baseline results from TINAGE trial

Vargese SS, Thomas P, Varughese D

Presenter : Saritha Susan Vargese

Affiliation : Faculty in Community Medicine

Believers Church Medical College Hospital

Date of presentation : 25/09/2024

We acknowledge Indian Council of Medical Research (ICMR) for the research grant.

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Background

- Older population

India 2011 – 104 million (8.6%); 2025 - 11.1%

Kerala 2011 – 7.4 million (12.6%); 2026 – 18%

- Dementia in India (Lee J et al., 2023)

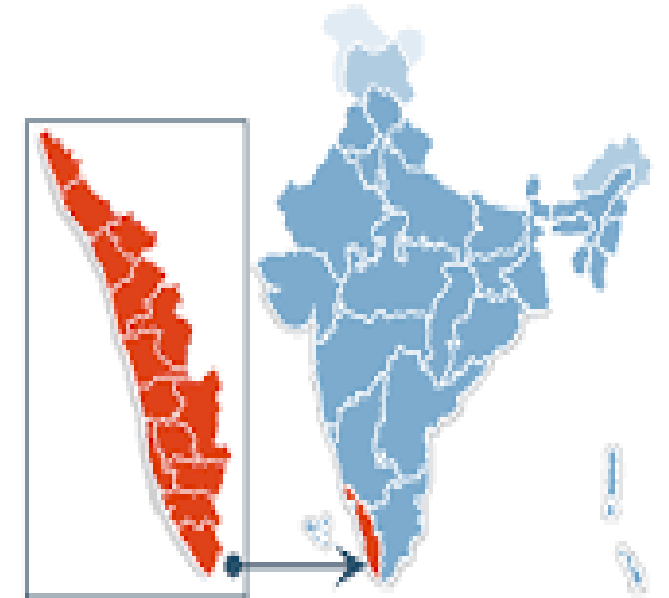
Prevalence is 7.4% among adults over the age of 60

8.8 million Indians are currently living with dementia

- Mild cognitive impairment (MCI) (Mohan D et al., 2019)

Transitional stage between normal cognitive aging and dementia

Kerala 26.6% (95% CI of 22.12 to 30.43)



Objective

- To estimate the prevalence and associated factors of mild cognitive impairment among community dwelling older adults between 60-75 years in a taluk of a South Kerala district

Multidomain intervention for prevention of cognitive decline among older adults with mild cognitive impairment: A cluster randomized trial

Tiruvalla **I**nterventional study in **A**geing – TINAGE Trial

Methods

- **Study design:** A cross-sectional analysis was conducted using baseline data from a community-based trial (TINAGE Trial).
- **Study population:** Older adults aged 60-75years
- **Sampling:** Randomly selected 20 wards from Thiruvalla Taluk followed by screening consenting eligible for cognitive impairment.
- **Sample size:** All eligible residents in 20 wards - minimum required sample size was calculated as 481. (Mohan et al., 2019)

- **Outcome variable:** Cognitive function - Montreal Cognitive Assessment Scale (MoCA) (*Nasreddine ZS et al., 2005*)
 - Scores of 18 to 25 indicate mild impairment
 - validated in local language
 - accessible to use
- **Exposure variables** – sociodemographic, comorbidities
- Multinomial logistic regression was employed to identify factors associated with MCI.

Results

- Mean(SD) age is 67.4(5.4), women (61.7%), currently not working (88%), above high school (60.4%), nuclear family (87%), single (4.5%)
- Prevalence 53.3%, 95% CI (50.59-55.41)
- Multinomial regression analysis revealed significant associations between MCI and two key factors:
 - depression - OR = 1.22; (95% CI 1.07-1.38)
 - history of stroke - OR = 2.78; (95% CI: 1.90-4.06)

Discussion

- Prevalence ranging from 18.6% (95% [CI] 14.7%–23.4%) -26.6 95% CI (22.1-30.4) in Kerala.
- High prevalence – vascular risk factors, social isolation
- Associated factors - unemployed, those above 70 years, imbalance on walking, depression, anxiety, alcohol (Mohan et al., 2019, Iype et al., 2023)

Conclusion and Recommendations

- The high prevalence of MCI underscores the urgent need for targeted interventions.
- Early identification of depression, prevention and cognitive rehabilitation of stroke.
- Integrating mental health services and stroke prevention strategies within community-based multidomain interventions.

Thank you!