

Association Between Modifiable Dementia Risk Factors And Mild Behavioral Impairment: A Cross-sectional Analysis

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Key takeaways: hearing loss, low physical activity, and loneliness are significantly associated with mild behavioral impairment symptoms' severity in older adults with mild cognitive impairment. These three modifiable targets may help mitigate dementia risk.

INTRODUCTION	METHODS	RESULTS	CONCLUSIONS	REFERENCES
- Mild behavioral impairment (MBI) is a validated marker of cognitive decline and increased dementia risk. - Prior work linked MBI to diabetes, frailty and loneliness, but a comprehensive examination of modifiable dementia risk factors is lacking. - This study explores how 12 established modifiable dementia risk factors relate to MBI symptoms' severity in a clinical population with MCI.	Study sample: 102 participants (mean age 70.8, 83.3% female) with mild cognitive impairment Methods: MBI-Checklist total score 12 risk factors: hypertension, ischemic heart disease, head injury, type II diabetes, low education, hearing loss, smoking, alcohol use, obesity, low physical activity, loneliness, and history of COVID-19 Analysis: Mann-Whitney U tests comparing MBI-Checklist total scores by risk factor status; effect sizes computed; false discovery rate (FDR) correction applied. Goal: to assess which risk factors are associated with MBI	After FDR adjustment, three risk factors were significantly linked to higher MBI-Checklist scores: Hearing loss (mean 11.06 vs. 6.99, $p = .022$, e.s. = 0.23) Low physical activity (mean 11.29 vs. 6.89, $p = .018$, e.s. = 0.23) Loneliness (mean 10.64 vs. 7.26, $p = .019$, e.s. = 0.23)	Hearing loss, physical inactivity, and loneliness are modifiable factors independently associated with greater MBI symptoms' severity. Targeting these factors through medical and psychosocial interventions may slow MBI progression and cognitive decline. Future longitudinal studies are needed to clarify causality and adapt dementia prevention strategies.	1. Ismail, Z. et al. (2023). Optimizing detection of Alzheimer's disease in mild cognitive impairment: A 4-year biomarker study of mild behavioral impairment in ADNI and MEMENTO. <i>Molecular Neurodegeneration</i>, 18(1), 50. doi:10.1186/s13024-023-00631-6 2. Fan, S. et al. (2020). Mild behavioral impairment is related to frailty in non-dementia older adults: A cross-sectional study. <i>BMC Geriatrics</i>, 20(1), 510. doi:10.1186/s12877-020-01903-2 CONTACT  Nikita Cherkasov @ ResearchGate ns-ncpz@ya.ru ALZHEIMER'S ASSOCIATION AAIC 26