

MARGINAL EFFECTS OF MULTIPLE YEARS OF VOLUNTEERING ON OBJECTIVE AND SUBJECTIVE MEASURES OF COGNITION

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Volunteering is conducive to older Americans' physical and mental health; however, the effect of volunteering on cognitive health is less studied. Using four waves (2010-2016) of the Health and Retirement Study, this study examined the incremental effect of volunteering engagement on older adults' cognitive health. We included 10,718 cognitively unimpaired, community-dwelling individuals aged 51+ in 2010 and were alive through 2016. Volunteering engagement was measured by the number of times respondents participated in volunteering throughout the four waves. Objective cognition was assessed using the Telephone Interview for Cognitive Status (TICS), a standardized test of cognitive functioning. The TICS score was further categorized into three statuses: "No impairment," "Cognitive impairment no dementia (CIND)," and "Dementia." Subjective cognition referred to self-rated memory on a 5-point Likert scale. With sampling weights, ordered logit regression was performed controlling for health-related variables (e.g., health conditions, depression), SES (e.g., income, assets), contextual features (e.g., neighborhood safety, urbanicity), and sociodemographics. The average marginal effects (AMEs) were produced. Results show that more volunteering engagement significantly reduced the likelihood of CIND or dementia (OR=0.88, $p < 0.001$). Specifically, every one-time increase in volunteering increased the probability of remaining cognitively normal by 0.01 ($p < 0.001$), whereas it decreased the probability of CIND by 0.008 ($p < 0.001$) and dementia by 0.001 ($p < 0.001$). For subjective cognition, there was no significant relationship with volunteering. Our findings address gaps in literature by adding evidence of the incremental health benefits of volunteering on cognitive functioning. Differences in the findings for subjective and objective cognition warrant further investigation.

SOCIALLY RELEVANT APPROACHES TO THE DETECTION OF DEMENTIA IN MINORITY OLDER ADULTS

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Substantial gaps remain in the scientific literature regarding low-income minority older adult populations with

Alzheimer's disease and related dementias (ADRDs). Access to care and early cognitive screening are often barriers to advancing ADRD detection in low socioeconomic status (SES) minority older adults. Additionally, there is the need for demographically (age, education, sex, race, ethnicity, and income) corrected normative scores in cognitive measures. Our cross-sectional study evaluated the psychometrics of the Mini-Mental State Exam-2 (MMSE-2) and the NIH Toolbox Cognition Battery (NIHTB-CB). The sample consisted of $n=80$ community-based older adults without a diagnosis of dementia living in low-income high-rise housing units. Acceptability is assessed with a brief 6-item acceptability survey, multiple linear regression is used to get predicted cognitive scores adjusted for age, education, income, ethnicity, race, and sex, and t-test comparison of the adjusted scores found in this study to established norms. Results found a mean age of 73, 70% black, 48% with < 12th-grade education, 51% have a monthly income of < \$1,000, and 49% with undiagnosed cognitive impairment (CI) by both measures. When applying demographic adjustments in the NIHTB-CB 1) standard scores; 2) age-corrected scores, and 3) demographically correct scores all remained significant ($p > 0.0001$). Participants reported high (80-95%) acceptability for the community-based cognitive screening, 18% reported concerns with cultural appropriateness of the questions in the NIHTB-CB as compared to 5% with the MMSE-2. This research lays the foundation for a community-based cognitive screening and care coordination program for the low SES minority older adult population.

THE ROLE OF SOCIOECONOMIC INEQUALITIES IN TRANSITIONING TO NEUROCOGNITIVE DISORDERS IN ENGLISH POPULATION

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The association between socioeconomic position (SEP) and dementia is well studied. However, scant attention has been given to the relationship with mild cognitive impairment (MCI), often considered a transient state between normal cognition and dementia. The purpose of this study was to determine the role of various SEP markers such as education and wealth on transitioning to MCI and dementia over a four-year period using data from the English Longitudinal Study of Ageing, a national representative sample of the English population aged 50+. We ascertained MCI and dementia over four years, using a validated algorithm based on physician diagnosis and lower cognitive performance (1 standard deviation below the mean) on multiple standardised tests adjusted for age and education. A Multistate Markov survival model was utilised to investigate whether different SEP markers increased the risk of specific transitions between normal cognitive performance and MCI or dementia, with the latter being considered an absorbing state. During the study period, a quarter of participants progressed to MCI from the normal state. Being in the lowest quintile of wealth was associated with a lower probability of transitioning back to a normal cognitive state from MCI, compared with those in the highest quintile. Greater wealth was weakly associated with a lower risk of transitioning from normal cognitive state