

(VETSA). For self-reported tobacco smoke, herbicides/pesticides, and metal dust we created three groups reflecting recency of exposure (current/former/never). For Agent Orange we examined two exposure groups (ever/never). Brain health, defined as predicted brain age (PBAD), was evaluated by applying Brain-Age Regression Analysis and Computation Utility software (BARACUS) to magnetic resonance images collected at age 68. Tobacco smoking ($r=-0.15$, $p=0.0004$) was significantly correlated with PBAD and remained significant ($F=5.56$, $p=0.005$) in multivariate analyses adjusted for age, socioeconomic status (SES), age 20 general cognitive ability, and non-independence of twins within pairs. Never smokers had significantly younger brains than current or former smokers. PBAD did not differ for current versus former smokers. In other analyses, more advanced PBAD was associated with non-amnesic MCI. In this sample, tobacco smoking had the strongest relationship with overall brain health in late midlife compared with other types of environmental exposures, reinforcing its role in pathological aging and its importance as a public health priority.

SESSION 2930 (POSTER)

DEMENTIA AND COGNITIVE IMPAIRMENT II

A QUALITATIVE STUDY ON MAKING RURAL COMMUNITIES MORE DEMENTIA-FRIENDLY

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Recent studies on attitudes toward dementia in the United States, such as the World Alzheimer Report 2019, have found that fear and stigma are still widespread among the general public. This may be particularly true in rural communities. In the current study, community-dwelling adults in small Midwestern communities responded to the open-ended survey question, "What do you think could be done to make your community more welcoming for people with Alzheimer's disease and other forms of dementia?" Participants ($N=242$) ranged in age from 18-88 ($M=40$, $SD=21$). The sample was 68% female, and 61% lived in communities of 50,000-150,000 people, while 39% lived in smaller towns. Most participants (61.2%) did not personally know someone with dementia. Data were collected via paper and telephone surveys. Responses to the open-ended question were analyzed using open, axial, and selective coding. The following themes emerged: greater exposure to individuals with dementia; educational workshops about dementia; more intergenerational programs; greater accessibility of respite care and other services; more fundraising efforts; and community leaders talking about dementia. Responses included, "Have more intergenerational programs that bring together Alzheimer's patients and children in a positive environment." "When I was in school, we visited an Alzheimer's unit. That was a great experience." "I know what it is, but I don't know anything else. I wish I was more informed. I don't know how to help." These findings indicate that residents of rural communities are motivated to help individuals with dementia, but need more guidance, education, and personal connections/exposure.

A SYSTEMATIC REVIEW OF OBSERVATIONAL DYADIC PERSONS LIVING WITH DEMENTIA: CAREGIVER COMMUNICATION INSTRUMENTS

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To facilitate social interaction and providing quality care in persons living with dementia (PLWD), an effective means of evaluating communication quality between PLWD and their caregiver is needed. However, there is no systematic review of current instruments to assess dyadic PLWD-caregiver interactions in various care settings. The purpose of this review was to critically evaluate existing dyadic observational communication instruments used to provide recommendations. A systematic review using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Guideline was conducted. Literature that were published by May 2019 in English were searched from CINAHL, AgeLine, PsychINFO, Communication and Mass Media Complete, ProQuest Dissertations and Theses Global, and Scopus. Keywords were "communication strategy," "communication," "caregivers," "dementia," and any combination of these terms or MeSH terms. Data were extracted including development process, operational concept, target population and setting, items/scoring format, psychometric properties, and research/clinical use. A total of 3042 articles were identified and 15 instruments from 29 studies were evaluated by the scoring of 12 psychometrics: participants/items ratio, reliability (internal consistency, intra-rater, inter-rater), and validity (content, concurrent, predictive, known group difference, divergent/discriminant, convergent, structural). The total score was ranged from 0 to 22 (high quality: 16-22, moderate: 8-15, low: 0-7). There was no instrument with high quality assessing dyadic interaction. Only one instrument was evaluated as moderate quality (modified Behavioral Observation Scoring System, BOSS). While existing instruments are still in the early stages of development and testing, they demonstrate potential evidence that may require further testing before application in research and clinical practice.

ACCELERATED DECLINE IN SENSE OF PURPOSE IN LIFE YEARS PRIOR TO DEMENTIA DIAGNOSIS

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Research has pointed to sense of purpose in life as an important individual difference that promotes successful aging, predicting greater psychological wellbeing, physical functioning, and cognitive health in older adulthood. Despite such benefits, it is unclear how major life challenges such as the onset of cognitive impairment may impact the sense of purpose of older adults. Building on this, the present study examined long-term change in sense of purpose in a longitudinal sample of older adults who would later develop dementia. Data were from 341 participants without dementia at study intake who were subsequently diagnosed with dementia during the follow-up period ($M_{age} = 81.92$ years at intake, $M_{age} = 89.19$ years at diagnosis, 72.72% female). Participants completed annual assessments of purpose in life up to 17 years prior to dementia diagnosis ($M = 6.99$ assessments prior to diagnosis). Piecewise growth modeling