

## **Personality traits moderate intervention effects on cognitive performance in older adults with mild cognitive impairment: Results from a 6-week conversation-based intervention**

**AUTHORS:** Eric S. Cerino\*, Karen Hooker, Hiroko H. Dodge

**TOPIC/TARGET AUDIENCE:** Public health professionals with a focus on cognitive interventions in older adults, personalized treatment programs, and personality and cognitive aging areas of research and practice.

**ABSTRACT:** Recent work has identified conversation-based intervention may have positive effects on cognition among older adults without dementia. It is unclear whether these improvements depend on an individual's personality. We examined data from a 6-week randomized controlled trial to determine if conversation-based intervention effects on cognitive performance were moderated by personality traits in 49 cognitively intact participants and 34 participants with mild cognitive impairment (MCI; Mage= 80.51 years, Range=70-99, 75.90% Female). In addition to psychosocial questionnaires and a neuropsychological battery, the intervention group participated in daily 30-minute face-to-face communications for six weeks. Among participants with MCI and high levels of openness, the intervention group exhibited trend-level increases in sustained attention and response inhibition beyond changes in the control group ( $p=.06$ ). Participants with low levels of openness showed the opposite pattern, with significant decreases in performance beyond changes in the control group ( $p<.01$ ). Further, intervention group participants with MCI and low-average levels of conscientiousness, but not high levels, showed significant improvements in psychomotor speed beyond changes in the control group ( $ps < .05$ ). Our findings identify openness and conscientiousness as important traits to consider when designing conversation-based cognitive interventions, and offers evidence for personalized approaches to cognitive health in late life.

### **OBJECTIVE(S):**

- Describe the moderating role of personality traits in a conversation-based intervention aimed to improve cognitive function in older adults without dementia.
- Differentiate the impact of different personality traits on cognitively intact participants and participants with mild cognitive impairment.
- Formulate ideas for more personalized approaches to cognitive interventions and public health initiatives that can target limited resources towards individuals who may demonstrate the greatest benefit.

### **PRIMARY CONTACT INFORMATION:**

Eric Cerino, MS  
Doctoral Student  
Human Development and Family Studies | Oregon State University  
2035836982 | cerinoe@oregonstate.edu

### **CO-PRESENTER(S):**

Karen Hooker, PhD | hookerk@oregonstate.edu  
Hiroko H. Dodge, PhD | dodgeh@ohsu.edu