

for gains and losses exist when outcomes are monetary or interpersonal in nature.

Participants and Methods: One hundred and forty community-dwelling older adults aged 50 to 90 (75% female, $M_{age}=71.6$) completed a hypothetical discounting task in which they chose between smaller immediate outcomes and larger delayed outcomes presented at various delay periods of one week, one month, six months, and one year. An iterative algorithm determined the indifference point for each delay period. Indifference points were fit to hyperbolic models using nonlinear regressions to determine discounting rates within each condition. Non-parametric Wilcoxon Signed-Rank tests compared discounting rates.

Results: Older adults more steeply discounted monetary gains as compared to monetary losses ($Z=-6.88$, $p<.001$), as well as for social gains compared to social losses ($Z=-4.81$, $p<.001$). They also discounted social gains more steeply than monetary gains ($Z=-5.44$, $p<.001$), and social losses more steeply than monetary losses ($Z=-4.44$, $p<.001$).

Conclusions: Preliminary findings suggest older adults displayed a greater desire for instant gratification of rewards, particularly social rewards, yet also displayed lower loss aversion, particularly for monetary losses. Stronger preferences for instant gratification of gains in certain contexts may inform ways in which healthier lifestyle choices or changes could be framed to appeal to older adults.

Categories: Aging

Keyword 1: aging (normal)

Keyword 2: decision-making

Correspondence: Amy Halpin, University of Maine, amy.halpin@maine.edu

7 Does Neurocognition Contribute to Age-Related Differences in the Accuracy and Sharing of COVID-19 Misinformation?

Anastasia Matchanova¹, Steven Paul Woods¹, Clayton Neighbors¹, Ilex Beltran-Najera¹, Christina Alex², Briana Johnson¹, Yenifer Morales¹, Luis D. Medina¹, Kenneth Podell³, Michelle A. Babicz⁴, Jennifer L. Thompson¹

¹University of Houston, Houston, TX, USA.

²Indiana University, Bloomington, IN, USA. ³The

Houston Methodist Concussion Center &

Neuropsychology Section Stanley H. Appel
Department of Neurology, Houston, TX, USA. ⁴Mental Health and Behavioral Science Service, James A. Haley Veterans' Hospital, Tampa, FL, USA

Objective: COVID-19 misinformation proliferating online has led to adverse health and societal consequences. Older adults are a particularly vulnerable population due to increased risk for both COVID-19 related complications and susceptibility to, as well as sharing of, misinformation on social networking sites. The present study aimed to: 1) investigate differences in COVID-19 headline accuracy discernment and online sharing of COVID-19 misinformation in older and younger adults; and 2) examine individual differences in global cognition, health literacy and verbal IQ in online sharing of COVID-19 misinformation.

Participants and Methods: Fifty-two younger (age 18 to 35 years) and fifty older adults (age 50 and older) completed a telephone neurocognitive battery, health literacy and numeracy measures and self-report questionnaires. Participants also completed a social media headline-sharing experiment (Pennycook et al., 2020) in which they were presented true and false COVID-19 headlines and asked to indicate: 1) the likelihood that they would share the story on social media; and 2) the factual accuracy of the story.

Results: A repeated measures multivariate analysis of variance controlling for gender and race/ethnicity showed no effects of age ($p=.099$), but a significant interaction between actual COVID-19 headline accuracy and likelihood of sharing ($p<.001$), such that accuracy is more strongly related to sharing false headlines ($r=-.64$) versus true headlines ($r=-.43$). Moreover, higher likelihood of sharing false COVID-19 headlines was associated with lower verbal IQ and numeracy skills in older adults ($r_s=-.51--.40$; $p_s<.01$) and with lower verbal IQ, numeracy, and global cognition in younger adults ($r_s=-.66--.60$; $p_s<.01$).

Conclusions: Findings indicate that headline accuracy judgements are an important predictor of sharing COVID-19 misinformation in both older and younger adults. Further, individual differences in cognition, IQ, and numeracy may predict the likelihood of misinformation sharing in younger adults, while IQ and numeracy skills may act as important antecedents of misinformation sharing in older adults. Future work might leverage modern,

neuropsychologically-based psychoeducation approaches to improving health and science literacy related to COVID-19.

Categories: Aging

Keyword 1: aging (normal)

Keyword 2: everyday functioning

Correspondence: Anastasia Matchanova, University of Houston amatchanova@uh.edu

8 Walking for Cognitive Function in Older Adults: A Systematic Review and Meta-Analysis

Andrew M Gradone¹, Vonetta M Dotson¹, Paul Verhaeghen²

¹Georgia State University, Atlanta, GA, USA.

²Georgia Institute of Technology, Atlanta, GA, USA

Objective: The world population is rapidly aging, and consequently, cognitive decline is becoming a larger public health crisis. There is no cure for dementia, but exercise has been consistently shown to improve cognitive function and slow cognitive decline in older adults. Given the many barriers to starting an exercise routine, walking is a particularly appealing intervention because it is safe, low-impact, and highly accessible (i.e., no upfront costs, no necessary equipment, and can be done almost anywhere and by anyone, given they are ambulatory). This abstract describes a systematic review and meta-analysis on peer-reviewed studies that examined randomized walking interventions for cognitive function in older adults.

Participants and Methods: The analyses included 1,286 older adults aged 55 and older (mean age = 73.1 years) across 19 studies that met inclusion criteria. All studies were randomized controlled trials (RCTs) of walking interventions with pre-post cognitive outcome data. A total of eight cognitive domains were identified: global cognition, attention, processing speed, working memory, language, visuospatial skills, declarative memory, and executive function. Effect sizes, measured as net treatment gain, were extracted and converted to Hedges' *g*. Three-level meta-analysis was used to account for dependency of effect sizes. Meta-regression analyses were used to examine whether the following variables moderated effect sizes: (a) cognitive status, (b) baseline activity

level, (c) age, (d) walking intervention duration, and (e) duration of individual walking sessions.

Results: Participation in walking interventions significantly benefitted broad cognitive functioning (Hedges' *g* = 0.19). The cognitive domains that specifically benefitted from walking were global cognition (*g* = 0.60), processing speed (*g* = 0.15), working memory (*g* = 0.22), declarative memory (*g* = 0.18), and executive functioning (*g* = 0.15). Cognitive status moderated this relationship, so that cognitively impaired older adults showed greater cognitive benefit from walking interventions. Baseline activity level did not moderate the effect; being sedentary at baseline yielded an effect size significantly greater than zero. The remaining moderator analyses were nonsignificant.

Conclusions: This systematic review and meta-analysis shows that walking interventions are associated with broad improvement in cognitive function in older adults. Walking benefits global cognition, processing speed, working memory, declarative memory, and executive function—the same cognitive domains that decline with normal cognitive aging. These findings are particularly important because walking is among the safest and most universally accessible forms of exercise. This will help healthcare providers make better lifestyle recommendations to their older patients. Future research should more rigorously examine potential moderating variables, such as walking intensity.

Categories: Aging

Keyword 1: cognitive functioning

Keyword 2: treatment outcome

Keyword 3: neuropsychological assessment

Correspondence: Andrew Gradone, Georgia State University, agradone1@student.gsu.edu

9 The Likelihood to Disclose Symptoms of Sickness During the COVID-19 Pandemic Increases with Age Across Adulthood

Anna R Egbert¹, Sadiye Cankurtaran², Sirinnaz Ouzturk³

¹Psychology Department, St. Joseph's University, New York, NY, USA. ²Institute of Psychology, Jagiellonian University, Cracow, Poland. ³Polish Academy of Science, Warsaw, Poland