

examined longitudinal use and benefits. While each paper examined one aspect of user-centered design, no technologies were reported that underwent all stages of the user-centered design process, from needs assessment to iterative design and usability testing, to efficacy trial. Such gaps highlight the important role ENHANCE can play.

THE RELATIONSHIP BETWEEN RELIGIOSITY AND COGNITIVE FUNCTION AMONG CHINESE OLDER ADULTS IN CHICAGO

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Evidence suggests religiosity may be related to cognitive decline in older adults living in the US and China. However, the relationship between religiosity and cognitive function has not been tested in a Chinese community in the US. Immigration and isolation often cause diasporas to differ from communities where they currently reside and their origin. This study aims to determine the relationship between religiosity, cognitive function, and demographic attributes in a sample of older Chinese adults age 60 to 105 living in the Chicago area (N = 3157). Regression analysis showed participation in organized religion significantly predicted higher global cognitive function ($\beta = 0.031$, $p < 0.001$, N = 3051). Of all cognitive function measures including episodic memory (East Boston Memory Immediate and Delayed Recall Test), perceptual speed (Symbol Digit Modalities Test), working memory (Digit Backwards Test), cognitive impairment (Mini Mental State Examination), and a composite measure of (global cognition), the importance of religion only significantly predicted greater working memory capacity ($\beta = 0.045$, $p = 0.003$, N = 3058). Practicing religion at home had a nonsignificant relationship with all measures of cognitive function. All analyses controlled for the following covariates: gender, education, income, number of children, marital status, and health insurance coverage status. Findings suggest that among aspects of religiosity, organized religious involvement may have a positive association with higher cognitive function. Future research should explore between-population differences in the relationships of social factors, religiosity, and cognition function to determine what practices can best benefit older adults in various communities.

TRANSCRANIAL BRAIN STIMULATION IMPROVES COGNITION IN OLDER ADULTS WITH DEPRESSION AND ANXIETY

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Older adults admitted to hospital for rehabilitation often have some degree of concomitant cognitive impairment, which may be a barrier to optimizing rehabilitation

approaches. Transcranial direct current stimulation (tDCS), a type of non-invasive brain stimulation, delivers a low electrical current across the brain. The neuromodulatory effects of tDCS can be of therapeutic benefit and has been shown to augment cognitive functions in both healthy and clinical populations. This study investigated the effects of tDCS on cognition in older adult inpatients with depression or anxiety. It was hypothesized that anodal tDCS over the left dorsolateral prefrontal cortex would increase cognitive performance compared to a placebo group. Twenty adults between 65 to 86 years of age admitted to the Glenrose Rehabilitation Hospital with underlying depression or anxiety were recruited. Anodal (n=10) or sham (n=10) tDCS stimulation was administered at 1.5mA over 20 minutes, for 10-15 sessions based on participant availability. Cognitive assessments were administered before and after the tDCS protocol. Anodal tDCS stimulation resulted in significant gains on the Symbol Digit Modality Test, Trail Making Test Part A, and Forward Digit Span. This study demonstrated a tDCS-invoked cognitive enhancement in the domains of attention, information processing speed, and short-term memory processes. With the rapidly ageing population, tDCS may be a potential therapeutic option for cognitive enhancement and may be beneficial in ageing-related cognitive-disorders including mild cognitive impairment and dementia.

VASCULAR ILLNESS, COGNITION, AND SUBJECTIVE AGING: EXAMINING THE VASCULAR HYPOTHESIS OF AGING

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Cognition relates longitudinally and cross-sectionally to physical and psychological health among older adults. The Vascular Hypothesis of Aging (Drewelies & Gerstorff, 2020) suggests that illnesses of a vascular nature (e.g., stroke, hypertension, severe varicose veins) negatively affect cognitive abilities. Awareness of age-related change (AARC) is also related to cognition. What is not known is whether the presence of a vascular illness and daily cognitive abilities interact to predict daily awareness of age-related changes. The purpose of this study is to examine the daily fluctuations of cognition, (i.e., memory failures) and their interaction with vascular illness to predict daily awareness of age-related changes. Data were analyzed from 104 participants (M age = 64.67, 60-90 years) who completed online self-report questionnaires. On Day 1, participants answered baseline questionnaires regarding presence of vascular illness, and on Days 2-9 completed measures regarding AARC losses and memory failures. Multilevel models revealed main effects of daily memory failures on awareness of age-related losses, such that on days with more memory failures, older adults reported more age-related losses. We also found a main effect for vascular illness, such that those with a vascular illness reported higher levels of daily age-related losses. We did not find a significant interaction between vascular illness and daily memory failures on daily reported age-related losses. Our results provide preliminary evidence that the vascular hypothesis of aging may also extend to perceptions of age-related changes. Future research could consider examining daily symptoms of vascular illness as they unfold over time.