

ASSOCIATIONS OF ADVERSE CHILDHOOD EXPERIENCES WITH EXECUTIVE FUNCTION AND BRAIN-DERIVED NEUROTROPHIC FACTOR

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Adverse childhood experiences (ACEs) may predict markers of neurocognitive performance (i.e., executive function; EF) and brain health/plasticity (i.e., brain-derived neurotrophic factor; BDNF). This pilot examined the magnitude of effects between: 1) ACEs and EF performance, 2) ACEs and BDNF levels, and 3) EF performance and BDNF levels. We hypothesize that higher ACEs will be associated with poorer EF scores and lower BDNF levels and that lower EF scores will be associated with lower BDNF levels. Given the pilot nature of the study, an emphasis is placed on effect size vs. significance. Participants were 36 middle-aged women enrolled in the NICE SPACES trial (age=31.4 years, BMI=34.2, racially minoritized=37.9%). ACEs were quantified using the 10-item Adverse Childhood Experiences Scale. EF was measured using the fluid cognition composite from the NIH Toolbox – Cognition Battery. BDNF was estimated using proBDNF levels estimated from serum collected via venipuncture. Higher ACEs levels were not directly associated with EF scores ($b = 0.03$, $p = .854$); but did show a meaningful negative beta coefficient with BDNF levels ($b = -0.34$, $p = .053$). EF scores and BDNF showed a positive coefficient that did not reach significance ($b = .26$, $p = .122$). In a modest pilot of middle-age women, higher ACEs were associated with lower BDNF, indicating greater adversity in childhood is linked to lower neurotrophins levels in adulthood. The lower BDNF levels may help explain poorer performance on cognitive tasks. Larger follow-up studies in more powered samples are warranted given the size of detected coefficients.

ATTACHMENT STYLE DIFFERENCES IN THE AFFECTIVE EXPERIENCE OF CHRONIC PAIN IN OSTEOARTHRITIS

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Objective. To examine the role of adult attachment style in the daily affective experiences of older adults with physician-confirmed knee osteoarthritis (OA). Methods. As part of a larger study of racial/ethnic differences in everyday quality of life with OA, 292 persons over the age of 50 completed a baseline interview including the Revised Adult Attachment Scale (RAAS; Collins, 1996). Dimensional RAAS attachment scores were coded into the secure, preoccupied, fearful, and dismissing groups (Bartholomew & Horowitz, 1991). Positive affect (PA), negative affect (NA), and pain were assessed using an experience sampling methodology consisting of 4 daily phone calls over 7 days. These analyses used ANCOVAs to examine 28-call means and SDs for PA, NA, and pain. Results. After controlling for demographics, results indicated significant group differences in average PA, NA, and pain. Pairwise comparisons indicated that participants endorsing a stable attachment style reported significantly

more PA and less NA than those with a fearful attachment style. Group differences for pain were marginal and less clear cut. Significant differences also emerged for variability of NA and pain. Individuals with a secure attachment style were significantly less variable in NA than those in the fearful and preoccupied groups. For pain variability, the preoccupied group showed more variability than those with secure or dismissive styles. Implications. Results contribute to a growing understanding of how individual attachment style may underlie the day-to-day affective experience of chronic pain. (Supported by R01-AG041655, D. Smith and P. Parmelee, PIs.)

BEST PRACTICES FOR LIVING LABS WHEN STUDYING OLDER ADULTS LIVING IN RURAL COMMUNITIES

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There are two core concepts that make living labs distinguishable: involvement of users as co-creators and evaluation in a real-world setting. Living labs increase the potential for product acceptance and adoption due to testing and tailoring with target users. Currently, there is a lack of a universally accepted guideline for best practices. The objective of this review is to identify the best practices of living labs that can be recognized by the scientific community and followed in future labs. A 5-stage scoping review, following Arksey and O'Malley's (2005) framework, was used to map out the coverage of different aspects of living lab methodology. A systematic search for articles involving living lab framework and older adults published between 2016-2021, was conducted in seven databases. Nine articles were included after review, the majority of which were published in health journals and were from Italy and the United States. An overview of consistent user involvement in the innovation process, real-world testing vs. laboratory testing, and participant scope findings will be shared. Multiple rounds of user feedback, real-world testing, and a small but diverse participant group were the most successful in increasing positive sentiments about the products tested in a living lab environment. The lack of published articles on living lab frameworks studying older adults indicate a gap in the literature. Creating a universally accepted definition for living labs and guidelines for best practices will allow for scientific validity and comparisons of studies and may increase the use and popularity of living labs.

BREAST CANCER SCREENING AND MOBILE WEB APP INTERVENTION: PERCEPTIONS, KNOWLEDGE, AND NEEDS AMONG NATIVE WOMEN

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American Indian (AI) women have the highest breast cancer mortality and lowest breast cancer screening rates in