

- reasonably do not adopt 2FA because of its lack of acceptability. Our negative result is that older adults are caught in a negative feedback loop where lack of adoption prevents availability, and vice versa. The positive result is that these concerns are straight-forward to overcome.

#### HEALTH LITERACY, MEDICAL NON-ADHERENCE, AND SELF-REPORTED HEALTH PROBLEMS AMONG OLDER INTERNET USERS

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The Internet presents new options for the elderly to gather information to support their health care. Health information gathering is among the major motivations for using the Internet among aging baby-boomers. However, insufficient e-health literacy presents challenges for the aging baby boomers. We examined the extent to which health-related internet use and e-health literacy are associated with non-adherence and self-reported negative health outcomes. Respondents were randomly sampled from the largest national online probability-based research panel (N = 710; M = 48.8, SD = 16.4). The age range in our research allowed us to examine the hypothesized associations across the full sample while focusing on older adults (age ≥ 60; N = 194). Older adults with greater e-health literacy reported higher averages for non-compliance because of information obtained from the Internet [(t (194) = 5.06, p ≤ .0001]. Ordinary least squares regression analyses showed that older adults who reported greater averages on health-related internet use reported higher averages on self-reported health problems (β = .292, p ≤ .01). However, women reported fewer health problems (β = -.217, p ≤ .01). Non-adherence with doctor recommendations is a significant positive predictor of self-reported health problem in the full sample (β = .244, p ≤ .0001) but not among older respondents (β = .032, p ≤ .061). Older individuals will make better utilization of the Internet if health professionals guide them to credible sources for health-related information. Empowerment of individuals to utilize the Internet in an informed manner requires addressing their needs for e-health literacy skills.

#### INTERNET USE AND NEGATIVE HEALTH PERCEPTIONS: THE MODERATING ROLES OF EDUCATION AND HEALTH LITERACY

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There is a mixed support regarding the effect of Internet use on health and well-being. We estimated the extent to which e-health literacy predicted two domains of negative assessment of well-being: negative affect and self-reported experience of health problems. Respondents were randomly sampled from the largest national online probability-based research panel (N = 710). Hierarchical ordinary least squares regression analyses were employed for hypothesis testing. We computed interaction terms (e-health literacy x strain; e-health literacy x education; and education x strain) as determinants of negative subjective assessment of well-being. Older adults with higher levels of e-health literacy reported significantly more health information consumerism [(t (194) = 7.32, p ≤ .0001] but less strain in medical encounters [(t (194) = 2.92, p ≤ .004]. They reported less negative

affect [(t (194) = 2.11, p ≤ .036] and more satisfaction with medical encounters [(t (194) = 4.70, p ≤ .0001]. The effect of perceived strain in medical encounters on negative affect was weaker among those with higher levels of education (β = -.314, p ≤ .01). Education had a significant moderating effect on the association between perceived strain in medical encounters and self-reported health problems, (β = -.550, p ≤ .05). Those who reported lower averages for e-health literacy but higher educational levels indicated lower averages on negative affect (β = -.597, p ≤ .05). Given that conventional methods of acquiring health-related information shift to the Internet, our study holds significant health and social implications for a rapidly growing Internet-connected older population.

#### DOES CHANGE IN INTERNET USE PREDICT PSYCHOLOGICAL WELL-BEING AMONG OLDER ADULTS?

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Previous work focusing on the relationship between Internet use and quality of life among older adults (aged 65+) has found evidence of various positive impacts. This project expands upon this work by examining the relationship between Internet use and measures of psychological well-being (PWB) including autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. The analytic sample is derived from two waves of data (Time 1 = 2004, Time 2 = 2011) taken from the Wisconsin Longitudinal Study and includes a sample of older adults aged-65 at Time 1 (N = 4943). Participants were separated into four categories: those who did not use the Internet at Time 1 or 2, those who used the Internet at Time 1 only, those who used the Internet at Time 2 only, and those who used the Internet at both Time 1 and 2. Regression analyses were performed with the Time 2 PWB measures as the outcomes and the Internet use categories as the primary predictors. Results indicate that while continuous Internet users typically reported higher PWB scores compared to non-users, those who stopped use between Time 1 and 2 also reported higher scores and those who started use between Time 1 and 2 reported lower scores. These results generally held when introducing Time 1 PWB measures as controls, suggesting changes in Internet use may affect PWB but not necessarily in the predicted directions. Additional control variables, potential explanations, and implications for future research are discussed.

#### A COMPREHENSIVE DIGITAL SELF-CARE SUPPORT SYSTEM FOR OLDER ADULTS: A MULTIDISCIPLINARY FRAMEWORK

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This paper presents an innovative conceptual framework for designing a Comprehensive Digital Self-care Support System (CDSSS) to meet the health needs -physical, mental and social health needs of older adults and their caregivers. Older adults deal with multiple co-morbidities, medications

and their side effects, fragmented care and often have poor understanding of their own health and treatments. These challenges call for solutions that lead to better empowerment and pro-active engagement and for support systems that focus on wellness and preventive care. The conceptual model we offer draws on diverse disciplines including health care management and medicine, information systems, communication, consumer behavior, and sociology to identify a set of key design principles for CDSSS. A review and analysis of the literature in the different fields led to the identification of 6 CDSSS design principles: (1) Systems approach; (2) User experience; (3) Ecosystem perspective for shared resources 4) Social and contextual learning; (5) Accessible design; (6) Designing for trust and empathy. The model clarifies how these design principles (or approaches) inform the development of the three main components of a CDSSS (data integration, communication, and resource integration) and enable the key CDSSS deliverables (learning, social & emotional support and care integration). The conceptual model also helps to lay out an agenda for future research on self-care support systems for older adults.

#### LOOK WHO'S TALKING: TRADITIONAL AND ELECTRONIC MEDIUMS OF CONTACT LINKED WITH LATER-LIFE SIBLING RELATIONSHIPS

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The sibling role is often the longest lasting relationship between individuals. As such, older adults may turn to siblings in later life as it is a relationship that is already familiar. Having a close and less conflictual relationship with a sibling may be especially important as older adults value siblings for emotional and practical support exhibited through contact. Minimal research has examined mediums of contact used between sibling dyads despite the increase use in technology among older adults. Using a sample of 491 Americans (Mage = 58.96) recruited via Amazon Mechanical Turk (Mturk), the current study examined five mediums of contact (i.e., in person, telephone, e-mail, texting, and social media) and how each type independently is related to sibling closeness and conflict. Further, using regression analyses in STATA, two and three-way interactions were examined to assess the role of sibling dyad composition affecting this relationship. Results indicated that contact through telephone was associated with higher sibling closeness for all sibling dyads, and that association was stronger for females with a sister compared to males with a brother. Further, in person and texting contact was especially beneficial for females with a brother. Main effects revealed contact in person, via social media, over the telephone, or through email, reported more sibling closeness, while those who engaged in more email contact reported less conflict. Thus, even in later life, siblings are keeping in contact with one another through both traditional and electronic mediums of communication, and this contact appears especially beneficial for sisters.

#### CAREGIVER RESPONSES TO REMOTE ACTIVITY MONITOR ALERTS OF PERSONS WITH DEMENTIA

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The benefits of technology to alert family caregivers to the needs of persons with Alzheimer's disease or related dementias (ADRD) are unclear. Previous research indicates that remote activity monitoring (RAM) system alerts can be alternately reassuring and highly stressful for caregivers. We conducted a parallel convergent mixed-methods analysis of 62 primary caregivers of persons with ADRD to evaluate the association between the number of alerts and caregiver outcomes after 6 months. We assessed caregiver-reported usability of the system as well as self-efficacy, sense of competence, and distress as primary outcomes. Linear regression models tested the association between the number of alerts and caregiver-reported usability and primary outcomes. The number of alerts declined over the first 6 months of system use and was not associated with a change in system usability or primary outcomes. Thematic analysis of caregiver-reported perceptions of RAM use simultaneously probed for more in-depth understanding of caregiver experiences of and feelings towards RAM. Preliminary analyses reveal that 28% of caregivers comments were positive, noting benefits such as early warning of health concerns and peace of mind. 34% of comments were neutral or mixed, and 38% were negative. Concerns included false alarms and accidental triggers, losing sleep due to alarms, and difficulties using the system. These findings help characterize the adjustment period to use RAM technology. The mixed-method results inform future research studies and applications of RAM systems so that researchers and caregivers can better understand the initial adjustment period, address concerns, and avoid discontinuing RAM use prematurely.

#### AGE-SPECIFIC VIEWS ON INVASIVE AND NON-INVASIVE HUMAN ENHANCEMENTS FOR COGNITIVE DECLINE

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This research examines the degree to which younger and older Americans approve of addressing cognitive decline using either a pill-based or an implant-based intervention to restore prior functioning. Half of a probability-based online sample expressed concerns over side effects and levels of approval for a pill-based intervention whereas the remainder of the sample did so for a relatively invasive implant-based enhancement (data were interviews of 2,025 American adults gathered by NORC's AmeriSpeak panel as part of the AARP Human Enhancements study). We predicted and found that relative disapproval of the implant-based intervention was only significant among those with high concerns over side effects. However, when looking at two age groups for which cognitive decline differed in salience, relative disapproval of the implant-based enhancements were relatively stronger for those 50 and older even among those with few concerns over side effects. This age-based aversion to invasive forms