

assumption testing with no serious violations noted. We also separated the sample by dominant handedness to compare right versus left-hand performance using paired samples t-tests within each group. There were no significant differences between the two groups on either age or sex.

Results: There was a statistically significant difference between right-hand dominant and left-hand dominant participants on the dependent variables, $F(2, 599) = 8.84$, $p < .001$, Wilks' Lambda = .971. Mean scores indicated that right-hand dominant participants ($M = 52.87$, $SD = 20.42$) outperformed their left-hand dominant counterparts ($M = 46.30$, $SD = 12.79$) when using their right UE, though both groups performed similarly when using their left UE (right-hand dominant $M = 48.55$, $SD = 17.81$; left-hand dominant $M = 49.70$, $SD = 14.13$). These findings were present despite expected results from paired samples t-tests that revealed individuals performed best with their dominant hand.

Conclusions: Results revealed that handedness is necessary to consider in design and utilization of computerized neuropsychological tests. The large proportion of right-hand dominant individuals may have affected our results; however, our sample is representative of handedness distribution in the general population. Although our paired samples t-tests support validity of RC21X, continued investigation of computerized performance measurement tools is necessary. Future research must explore the possibility of an ordering effect (i.e., right-handed participants starting with their dominant UE, but left-handed participants starting with their nondominant UE) or due to construction of everyday items (e.g., computer keyboards) primarily for right-hand dominant people.

Categories: Teleneuropsychology/ Technology

Keyword 1: computerized neuropsychological testing

Keyword 2: handedness

Keyword 3: motor speed

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96 Feasibility Trial of a Mobile Health Intervention for Dementia Caregivers

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Objective: There are numerous adverse health outcomes associated with dementia caregiving, including increased stress and depression. Caregivers often face time-related, socioeconomic, geographic, and pandemic-related barriers to treatment. Thus, implementing mobile health (mHealth) interventions is one way of increasing caregivers' access to supportive care. The objective of the current study was to collect data from a 3-month feasibility trial of a multicomponent mHealth intervention for dementia caregivers.

Participants and Methods: 40 community-dwelling dementia caregivers were randomized to receive the CARE-Well (Caregiver Assessment, Resources, and Education) App or internet links connected to caregiver education, support, and resources. Caregivers were encouraged to use the App or links at least 4 times per week for 3 months. The App consisted of self-assessments, caregiver and stress reduction education, behavior problem management, calendar reminders, and online social support. Caregivers completed measures of burden, depression, and desire to institutionalize at baseline and post-intervention. Feasibility data included App usage, retention and adherence rates, and treatment satisfaction. Data were analyzed via descriptive statistics.

Results: Caregivers were mostly white (95%), female (68%), in their mid-60s ($M = 66.38$, $SD = 10.64$), and well-educated ($M = 15.52$ years, $SD = 2.26$). Caregivers were mainly spouses (68%) or adult children (30%). Care recipients were diagnosed with mild (60%) or moderate (40%) dementia, with 80% diagnosed as having Alzheimer's disease. Overall, the study had an 85% retention rate (80% for App group; 90% for links group). 58% of caregivers in the App group were considered high users, using the App >120 minutes over the course of 3 months ($M = 362.42$, $SD = 432.68$), and an average of 16.44 days ($SD = 15.51$). 15% of the sample was non-adherent due to time constraints, disinterest,

and/or technology issues. Most participants (75%) using the App were mostly or very satisfied, about 87% would be likely or very likely to seek similar programs in the future, and 93% found the App mostly or very understandable. Groups did not significantly differ on clinical outcomes, although the study was not powered for an efficacy analysis. Within groups analysis revealed significant increases in depressive symptoms at post-treatment for caregivers in both groups.

Conclusions: This study demonstrated initial feasibility of the CARE-Well App for dementia caregivers. App use was lower than expected, however, high satisfaction, ease of use, and willingness to use similar programs in the future were endorsed. Some caregivers did not complete the intervention due to caregiving responsibilities, general disinterest, and/or technology issues. Although the study was not designed to assess clinical outcomes, we found that both groups reported higher depressive symptoms at post-treatment. This finding was unexpected and might reflect pandemic-related stress, which has been shown to particularly impact dementia caregivers. Future studies should address the efficacy of multicomponent mHealth interventions for dementia caregivers and the effects of increased dose on clinical outcomes. mHealth interventions should be refined to cater to varying levels of technology literacy among caregivers, and further research should aim to better integrate interventions into caregivers' routines to enhance treatment engagement.

Categories: Teleneuropsychology/ Technology

Keyword 1: caregiver burden

Keyword 2: dementia - Alzheimer's disease

Keyword 3: technology

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97 Evaluation of Video and Telephone-Based Administration of the Uniform Data Set Version 3 (UDS v3.0) Teleneuropsychological Measures

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Objective: Telecommunication-assisted neuropsychological assessment (teleNP) has become more widespread, particularly in response to the COVID-19 pandemic. However, comparatively few studies have evaluated in-home teleNP testing and none, to our knowledge, have evaluated the National Alzheimer's Coordinating Center's (NACC) Uniform Data Set version 3 tele-adapted test battery (UDS v3.0 t-cog). The current study compares in-home teleNP administration of the UDS v3.0, acquired while in-person activities were suspended due to COVID-19, with a prior in-person UDS v3.0 evaluation.

Participants and Methods: 210 participants from the Michigan Alzheimer's Disease Research Center's longitudinal study of memory and aging completed both an in-person UDS v3.0 and a subsequent teleNP UDS v3.0 evaluation. The teleNP UDS v3.0 was administered either via video conference (n = 131), telephone (n = 75), or hybrid format (n = 4) with approximately 16 months between evaluations (mean = 484.7 days; SD = 122.4 days; range = 320-986 days). The following clinical phenotypes were represented at the initial assessment period (i.e., the most recent in-person UDS v3.0 evaluation prior to the teleNP UDS v3.0): cognitively healthy (n = 138), mild cognitive impairment (MCI; n = 60), dementia (n = 11), and impaired not MCI (n = 1). Tests included both the in-person and teleNP UDS v3.0 measures, as well as the Hopkins Verbal Learning Test-Revised (HVLT-R) and Letter "C" Fluency.

Results: We calculated intraclass correlation coefficients (ICC) with raw scores from each time point for the entire sample. Sub-analyses were conducted for each phenotype among participants with an unchanged consensus research diagnosis: cognitively healthy (n = 122), MCI (n = 47), or cognitively impaired (i.e., MCI, dementia, and impaired not MCI) (n = 66). Test-retest reliability across modalities and clinical phenotypes was, in general, moderate. The poorest agreement was associated with the Trail Making Test (TMT) – A (ICC = 0.00; r = 0.027), TMT - B (ICC = 0.26; r = 0.44), and Number Span Backward (ICC = 0.49). The HVLT-R demonstrated moderate reliability overall (ICC = 0.51-0.68) but had notably weak reliability for cognitively healthy participants (ICC