examining the effect of administration context on performance.
Results: There were no significant differences in DKEFS-CW scaled scores between those who were administered the measure in-person or virtually (Color Naming: $M_{in\text{-}person}$=10.78, $M_{virtual}$=10.08, t(110)=1.634, p=.105; Word Reading: $M_{in\text{-}person}$=11.25, $M_{virtual}$=10.92, t(110)=.877, p=.382; Inhibition: $M_{in\text{-}person}$=11.70, $M_{virtual}$=11.24, t(110)=1.182, p=.240; Inhibition/Switching: $M_{in\text{-}person}$=11.29, $M_{virtual}$=10.82, t(110)=1.114, p=.268). There were no significant between-group differences in concussion history, sex, maternal education or IQ. However, those who were administered the DKEFS-CW in-person (Mage=13.55) were significantly younger than those who were administered the measure virtually (Mage=14.69), t(110)=-2.777, p=.006. After controlling for age, there remained no significant relationship between administration context (in-person vs. virtual) and DKEFS-CW performance for any subtest condition (Color Naming: F(1,30)=.016, p=.889; Word Reading: F(1,76)=.655, p=.421; Inhibition: F(1,30)=.038, p=.847; Inhibition/Switching: F(1,30)=.015, p=.902).
Conclusions: The recommended practice for remote administration of DKEFS-CW is to have test stimuli presented flat on a table by a trained facilitator present with the examinees. Here, we provide preliminary evidence of equivalence between DKEFS-CW scores from tests completed in-person and those completed virtually with stimuli presented on a computer screen. Future studies are needed to replicate these findings in clinical populations with greater variability in executive function. Some clinical populations may also require more in-person support. Likewise, future studies may examine the role of trained facilitators or caregivers in the virtual testing process.

Categories: Teleneuropsychology/ Technology
Keyword 1: teleneuropsychology
Keyword 2: executive functions
Keyword 3: concussion/ mild traumatic brain injury
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95 Handedness as a Consideration for Computerized Neuromotor Performance Testing

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Objective: The COVID-19 pandemic created barriers to healthcare that necessitated changes in services to meet needs of individuals. With these changes, technological advances in computerized cognitive testing became critical. As researchers and clinicians accelerated adaptation of computerized testing formats, considerations for development and interpretation of such tools have proved imperative. One such computerized tool, RC21X, utilizes performance measurement software comprising 15 modules to evaluate an individual's processing speed, memory, executive functions, and neuromotor coordination. Although initial data has revealed strong psychometric properties (Saganis et al., 2020), a need to explore various attributes of this web-based tool has emerged. The current study examined impact of dominant handedness on an RC21X neuromotor task.
Participants and Methods: The sample consisted of 602 participants: 553 (91.86%) were right-hand dominant and 49 (8.14%) were left-hand dominant. Of participants who identified their sex, 81.2% were male, 18.3% were female; 0.5% chose not to identify. Age ranged from 7-95 years (M = 41.21, SD = 18.81). This study focused on the RC21X Eye-Hand Coordination subtest. Using a Fitts' Law paradigm, the module provided instruction for participants to alternately press the "A" and "L" keys on a keyboard as quickly and accurately as possible using only one upper extremity (UE) at a time (tested separately for right then left UE). We computed a one-way between groups multivariate analysis of variance (MANOVA) to investigate handedness differences on task performance. Dependent variables were individuals' performances on right- and left-UE tasks; the independent variable was dominant handedness. We conducted preliminary

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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,

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