neutral (e.g., “I would enjoy it”). Chi-squares assessed for group differences.
Results: South African adolescents were 15.42 years on average, 50.3% male, and 49% were HIV-positive. Ugandan adolescents were 15.64 years on average, 50.6% male, and 54% HIV-positive. South African participants were more likely than Ugandan participants to have ever used a computer (71% vs. 49%; p<.005), or tablet (58% vs. 40%; p<.05), whereas smartphone use was similar (94% vs 87%). South African participants reported higher rates of comfort using a computer (86% vs. 46%; p<.001) and smartphone (96% vs. 88%; p<.05) compared to Ugandan participants. Ugandan adolescents rated using NeuroScreen as easier than South African adolescents (96% vs. 87%; p<.05).). Regarding within-sample differences by HIV status, Ugandan participants with HIV were less likely to have used a computer than participants without HIV (70% vs. 57%; p<.05, respectively).The Finger Tapping test was rated as the easiest by both South African (73%) and Ugandan (64%) participants. Trail Making was rated as the most difficult test among Ugandan participants (37%); 75% of South African participants reported no tasks as difficult followed by Finger Tapping as most difficult (8%). When asked about completing NeuroScreen at routine doctor’s visits, most South Africans (85%) and Ugandans (72%) responded positively.
Conclusions: This study found that even with low prior tablet use and varying levels of comfort in using technology, South African and Ugandan adolescents rated NeuroScreen with high acceptability and usability. These data suggest that scaling up NeuroScreen in LMICs, where technology use might be limited, may be appropriate for adolescent populations. Further research should examine prior experience and comfort with tablets as predictors NeuroScreen test performance.

Categories: Teleneuropsychology/ Technology
Keyword 1: cognitive screening
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Correspondence: Christopher M. Ferraris, HIV Center for Clinical and Behavioral Studies at the New York State Psychiatric Institute and Columbia University, christopher.ferraris@nyspi.columbia.edu

94 Equivalence of In-person and Virtual Administration of the Delis-Kaplan Executive Function System's Color-Word Interference Subtest in Youth Recovered from Concussion and Controls

Nishta R Amin, Tyler A Busch, Kayla B Huntington, Isaac H Chen, Beth S Slomine, Stacy J Suskauer, Adrian M Svingos
Kennedy Krieger Institute, Baltimore, MD, USA

Objective: Virtual testing can reduce cost and burdens, as well as increase access to clinical care. Few studies have examined the equivalency of virtual and in-person administration of standardized measures of executive functioning in children. During the COVID-19 pandemic, we utilized virtual administration of the Delis-Kaplan Executive Function System, Color-Word Interference Test (DKEFS-CW) in our ongoing longitudinal research study exploring outcomes in children clinically recovered from concussion compared to never-concussed peers. In the current study, we explore the equivalence of scores obtained via in-person and virtual administration of the DKEFS-CW in youth recovered from concussion and never-concussed controls.
Participants and Methods: Participants included 112 youth ages 10-18 (M_{age}=14.05 years, SD=2.296; 53.5 % Male) who completed the DKEFS-CW in-person (n=63) or virtually (n=49) as part of their involvement in the parent study. Of these, 38 were recovered from concussion ($M_{days\ since\ injury}$=91.21, SD=88.91), and 74 were never-injured controls. Virtual administration was done via Zoom by presenting digital scans of the DKEFS stimulus book using the screen-sharing function. Participants set up and joined the Zoom call from a secondary device (cell phone) that was set in a stable position to provide a view of their screen, mouse and keyboard setup.
Group (in-person vs remote) differences in DKEFS-CW scores were examined using independent-samples t-tests for all subtest conditions (color naming, word reading, inhibition, and inhibition/switching). T-tests/chi-square tests were used to examine between-group differences in demographic variables (i.e., age, sex maternal education, IQ, concussion history). Demographic variables that were significantly different by group were then included as covariates in ANCOVA models

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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.

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Correspondence: Nishta Amin, Kennedy Krieger Institute, nishtaamin24@gmail.com

95 Handedness as a Consideration for Computerized Neuromotor Performance Testing

Sarah L. Kohnen[1], Xanthia Saganis[2], George Kondraske[3], Anthony J. Goreczny[1], Paul Nussbaum[4]
[1]Chatham University, Pittsburgh, PA, USA. [2]University of Pittsburgh, Pittsburgh, PA, USA. [3]University of Texas at Arlington, Arlington, Texas, USA. [4]Brain Health Center, Wexford, PA, USA

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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