

disorder, be actively suicidal; have a substance use disorder within the past year, or use of medication with a known negative impact on cognition or autonomic nervous system (ANS) arousal. Participants were randomized to a waitlist control group or an intervention group. Cognitive assessments were administered over the phone to both groups (pre and post-treatment) and self-report measures were completed online due to quarantine restrictions.

Results: Among participants in the waitlist control group, the mean difference (MD) between time points on OTMT-A (MD= -0.17, SD= 1.69) was small and not significant ($p>0.05$). The mean difference for OTMT-B (MD= -13.06, SD=26.99) was large and significant ($p=0.01$). Bivariate Pearson correlations were computed revealing a significant moderate strength relationship between OTMT-A performance across time points ($r=0.6$, $p<0.001$). In contrast, performance on OTMT-B across time points revealed a non-significant, weak relationship ($r=0.2$, $p=1.94$).

Conclusions: These results do not support literature demonstrating strong test-retest reliability for OTMT-B. Furthermore, this is the first study establishing test-retest reliability for the OTMT-A as administered via a novel telephonic modality. Given the novel and non-standardized method of administration, the data should be interpreted with caution. Nonetheless, given the weak relationship in OTMT-B performance and the only moderate relationship of OTMT-A performance across time points, the results suggest that the OTMT may not be highly reliable as administered via a telephonic modality.

Categories: Teleneuropsychology/ Technology

Keyword 1: teleneuropsychology

Keyword 2: test reliability

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82 Development of a Hybrid Teleneuropsychology Clinic within a VA Medical Center: A Qualitative Evaluation of Patient and Clinician Expectations and Experiences.

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Objective: Gaining access to specialty care services, including neuropsychology, can be challenging, especially for older adults and individuals who live in rural areas. In addition to these barriers, the ongoing COVID-19 pandemic further disrupted patient access to essential healthcare services. Telehealth, which underwent rapid expansion in response to service disruptions due to COVID-19, offers opportunities to prevent or reduce disruptions in patient care, including neuropsychological assessment. Here we describe the development and implementation of a teleneuropsychology (telenp) clinic within a major VA medical center and discuss salient clinical observations and patient feedback gathered during telenp evaluations.

Participants and Methods: A hybrid telenp clinic was developed at the Tennessee Valley VA Healthcare system to serve patients referred for neuropsychological evaluations whose access to services was impacted by the COVID-19 pandemic. Patients presented to the VA and were connected to neuropsychology providers seated in separate rooms of the hospital through synchronous video. Test batteries were created to closely approximate in-person evaluations while allowing for minor procedural modifications so tests could be administered virtually. All tests were administered by on-site trained staff. After the evaluation, anecdotal information about patient experiences and satisfaction and salient clinical observations were gathered to elucidate potential benefits and shortcomings of hybrid telenp model.

Results: 65 telenp neuropsychological evaluations were conducted between December 2020 and April 2021. Overall, patients consistently and strikingly reported a high degree of openness and acceptance towards telenp services, even despite initial technological apprehension. Importantly, patients ubiquitously reported believed they were able to adequately engage in telenp assessments, and no perceptible barriers were identified. Clinically, examiners consistently expressed surprise at the relative ease with which the evaluations

could be adapted to a telenp program. Additionally, clinicians generally felt confident in the validity of the results and that the data gathered were sufficient to answer the referral question and make salient treatment recommendations and referrals. Importantly, there were some notable limitations to telenp assessment and not all patients were testable via telehealth.

Conclusions: Qualitatively, hybrid telenp evaluations are feasible and acceptable, and appear to be a valid alternative to face to face neuropsychological assessments. Future research should focus on establishing the reliability and validity of telenp testing compared to face-to-face testing, collective quantitative data regarding patient and clinician experiences of telenp and identify methods for implementing telenp in clinics in rural catchment areas to increase access to neuropsychological services.

Categories: Teleneuropsychology/ Technology

Keyword 1: teleneuropsychology

Keyword 2: neuropsychological assessment

Keyword 3: technology

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83 Association Between Tele-Neuropsychological Versus In-person Assessment in a Clinical Sample of Veterans with a History of Traumatic Brain Injury

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Objective: During the COVID-19 pandemic, many neuropsychological services shifted from an in-person assessment to a tele-neuropsychological assessment format. Prior research studies support the use of telemedicine assessments but have also noted some limitations (i.e., tasks involving direct manipulation of physical stimuli and visuospatial tasks). We sought to examine the relationship between the same neuropsychological tasks administered via a telemedicine versus in-person format in a treatment seeking clinical sample of Veterans with history of TBI.

Participants and Methods: Veterans with history of mild to severe TBI (predominantly mild TBI) referred to the TBI Cognitive Rehabilitation Clinic within the San Diego Veterans Affairs Medical Center completed a comprehensive neuropsychological assessment to help inform diagnosis and treatment recommendations. 515 Veterans completed traditional in-person assessment (pre-pandemic) and 45 Veterans completed neuropsychological assessment via a telemedicine platform during the pandemic (Veteran was in their home and examiner was in their home or facility office). The total sample consisted of 93% male and 7% female, average age of 33, 13 years of education, 63% White, 13% Other/Non-reported, 12% Black, 6% Asian, 6% Pacific Islander, 2% Alaskan Native, and 1% Multi-Racial, 73% Non-Hispanic, and 27% Hispanic. For the purposes of this study, we used age-corrected subtest scores from the Delis-Kaplan Executive Function System (D-KEFS): Color Word Interference (CWI) and Verbal Fluency (VF), WASI-II Matrix Reasoning, California Verbal Learning Test (CVLT-II), Wechsler Memory Scale (WMS-IV): Logical Memory, and WRAT-IV Reading. We also examined symptoms of anxiety (BAI), sleep quality (PSQI), neurological symptoms (NSI), and symptoms of PTSD (PCL-5). ANOVAs were used to analyze the relationship between tele-neuropsychological versus in-person administration. Additionally, we controlled for performance validity failure.

Results: Tele-neuropsychological task results were comparable to in-person assessment across all tasks, except for D-KEFS CWI color naming subtest where individuals completing the task via telemedicine performed approximately 2 scaled scores below the in-person assessment group, $F(1, 278)=6.44, p=.012$. Individuals who completed the tele-neuropsychological assessment during the COVID-pandemic did not differ on scores of self-reported symptoms of PTSD or neuropsychological symptoms when compared to in-person assessment of pre-pandemic individuals within our clinic. However, the telemedicine group reported better sleep quality ($F(1, 377)=11.94, p=.001$) but a trend towards more symptoms of anxiety ($F(1, 552)=2.90, p=.089$).

Conclusions: These results suggest that many of the verbal memory, language, premorbid functioning, and verbal/visual tasks of executive function can be adequately administered via telemedicine. Substantial variability may exist on measures of processing speed administered via