academic functioning did not significantly differ between age cohorts. Children with epilepsy may have entered the pandemic with effective academic supports and/or were accustomed to school disruptions given their seizure history. Replication is needed as findings are based on a proxy measure of pandemic timing and the extent to which children experienced in-person, remote, and hybrid learning is unknown. Children tested a year into the pandemic, after receiving instruction through varying educational methods, may score differently than those tested earlier. Future research can address these gaps. Although it is encouraging that academic functioning was not disproportionately impacted during the pandemic in this sample, children with epilepsy are at-risk for generalized academic difficulties and continued monitoring of academic functioning is necessary.

Categories: Epilepsy/Seizures
Keyword 1: academic achievement
Keyword 2: pediatric neuropsychology
Keyword 3: academic skills
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28 Challenges to Lateralizing Visual Memory Dysfunction in TLE Patients

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Objective: Neuropsychological assessment is an essential part of presurgical evaluation for epilepsy patients with refractory temporal lobe epilepsy. Evaluations assist in localizing and lateralizing epileptogenic focal points and identifying possible risks for cognitive decline following surgery. Researchers and clinicians consistently find that verbal memory dysfunction is an accurate indicator of left temporal lobe epilepsy (TLE) through verbal measures such as the CVLT-II. Although visual memory structures are assumed to be in the right (nondominant) hemisphere, visual memory assessments have not been reliable in identifying right TLE. It is hypothesized that assessments to test visual memory are confounded by verbal cueing to assist in visual learning. To account for this, researchers have identified that comparing verbal and visual score asymmetries does accurately differentiate left and right TLE patients. This study aimed to determine if verbal-visual asymmetry using the CVLT-II and BVMT-R accurately identifies left and right TLE relative weaknesses potentially associated with epileptogenic regions.
Participants and Methods: As part of a pre-surgical neuropsychological evaluation, 37 well-characterized medically refractory TLE patients (18 right TLE; 19 left TLE) were administered the Brief Visuospatial Memory Test-Revised to evaluate visuospatial memory and the CVLT-II to evaluate verbal memory. A multivariate analysis of variance was used to compare RTLE and LTLE group performances on BVMT-R delay recall subscales, using T-scores. Then memory asymmetry scores were calculated by converting CVLT-II verbal delay memory scores to T-scores and subtracting BVMT-R delayed recall T-score from the verbal memory T-score. An independent samples t-test was used to compare asymmetry scores between the groups.
Results: There were no significant differences between patients with RTLE and LTLE for BVMT-R Delay [$F(2,34) = 0.11$, $p = .895$]. There was not a significant difference when accounting for verbal-visual asymmetry ($t(35) = 0.422$, $p = 0.675$, $d = 12.566$) between left ($M = -2.42$, $SD = 13.82$) and right side ($M = -4.17$, $SD = 11.09$).
Conclusions: The BVMT-R did not identify nondominant hemisphere dysfunction in this sample of 18 right TLE patients. Because visual memory performance did not inform lateralization, we investigated the usefulness of memory asymmetry. Inconsistent with our hypothesis, verbal-visual memory asymmetry scores did not differentiate RTLE from LTLE in this sample. These findings add to existing findings that the BVMT-R may not be able to identify visuospatial memory dysfunction in epilepsy. Additionally, these data indicate the inability to assess for visuospatial memory even when accounting for verbal abilities in epilepsy patients. Future research should consider alternate visuospatial measures for the evaluation of epilepsy patients.

Categories: Epilepsy/Seizures
Keyword 1: epilepsy / seizure disorders
Keyword 2: neuropsychological assessment

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29 Quality of Life in Younger and Older Adults with Epilepsy

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Objective: Epilepsy is the third most common neurological disorder among older adults, and as adults are living longer, the incidence of epilepsy is increasing (Kun Lee, 2019). The purpose of this study is to examine 1. differences in quality of life (QOL) between older and younger adults with medically intractable epilepsy and 2. the impact of seizure frequency, seizure duration, depression, sex, and marital status on QOL. Given differences in the prevalence rates of depression between men and women and importance of depression in QOL, we predicted that sex and marital status would moderate the effect of depression on total QOL (TQOL).
Hypothesis I: Compared to younger adults, older adults with epilepsy will report lower TQOL scores and lower scores on subscales measuring energy/fatigue, cognition, and medication effects.
Hypothesis II: Seizure variables and depression will significantly account for TQOL scores in both groups (younger and older) above demographic variables (sex, marital status, and education).
Hypothesis III: Sex will moderate the effect of depression in both groups and marital status will moderate the effect of depression only in the older adults.
Participants and Methods: Participants were 607 adults (> 18 years old) who were prospective candidates for epilepsy surgery and underwent a comprehensive neuropsychological evaluation including QOL assessment using the Quality of Life in Epilepsy Scale-31 (QOLIE-31). Individuals were grouped by older (> 50 years old; N = 122) and younger adults (< 50 years old; N = 485). Hierarchical regression was used to examine the proposed associations.
Results: Hypothesis I: In contrast to our hypothesis, a one-way ANOVA did not reveal significant differences between the older and younger groups on the QOL subscales, TQOL, or depression.
Hypothesis II: For older adults, longer seizure duration was associated with better TQOL; bivariate correlations showed no evidence of statistical suppression. Higher depression scores were associated with worse TQOL. Overall, the model accounted for 39.6% of variance among older adults. For younger adults, only depression was a significant predictor of TQOL wherein higher depression scores were associated with worse TQOL. Overall, the model accounted for 36.1% of the variance among younger adults.
Hypothesis III: There was no moderation between depression and marital status in older or younger adults ($b = -.009$, $p > .05$). There was multicollinearity evidenced by VIF (variance inflation factor) greater than 10, so the associations between depression and sex could not be examined.
Conclusions: Overall, there were no significant differences between QOL in younger versus older adults. Greater depression symptoms were associated with lower TQOL in both groups. Longer seizure duration was a significant predictor of better TQOL in older adults only, perhaps indicating better adjustment to having a seizure disorder with longer duration of epilepsy. Lastly, marital status did not moderate the effects of depression on TQOL and the moderating effects of sex on TQOL could not be assessed due to multicollinearity. Study limitations include dichotomizing the sample into these particular age groups and the heterogeneity of seizure types.

Categories: Epilepsy/Seizures
Keyword 1: epilepsy / seizure disorders
Keyword 2: quality of life
Keyword 3: depression
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31 Item and Associative Visual Memory in Presurgical Temporal Lobe Epilepsy Patients

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