

Neurobehavioral Assessment in Diverse Patients with Epilepsy

Abstract

Authors:

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Comprehensive approach to neurobehavioral evaluation of patients with epilepsy (PWE) involves integration of medical, developmental and social factors in examining patients' neuropsychological and adaptive functioning, including their ability to manage epilepsy treatment. In populations at high risk for poor health outcomes, such as socioeconomically disadvantaged, ethnic and racial minority PWE, little is known about the prevalence of suboptimal adherence or of its correlates, including cognitive and psychological dysfunction. There is also limited understanding among clinicians of the psychosocial context, prevalence of perceived epilepsy stigma and misconceptions about treatment in underserved groups.

Research at SUNY DMC with diverse, predominantly African American and Caribbean American, adult PWE (diagnosed with epilepsy for ≥ 1 year, prescribed ≥ 1 AED, and reporting ≥ 2 seizures in the previous 6 months) revealed high prevalence of suboptimal medication adherence (70% days of correct dosing as measured by the MEMS), significantly associated with memory impairment (episodic memory on the Hopkins Verbal Learning Test – Revised (HVLT-R) mean $T=32\pm 10$, $p<0.05$; prospective memory on the Memory for Intentions Test or MIST $z= -1.63\pm 2.23$, $p<0.05$). There was high prevalence of depressive disorder (41% on the Mini-International Neuropsychiatric Interview or MINI) and anxiety (43% qualified ≥ 1 anxiety disorder on the MINI), which were associated with negative beliefs and perceptions of stigma. These findings help to identify several important factors as potential targets for behavioral interventions aimed at improving patients' quality of life (QOL), treatment adherence, and treatment outcome in underserved groups.