

Limits of the Dot Counting Test: A Culturally Responsive Approach to Neuropsychological Evaluations and Treatment

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Abstract : Neuropsychological testing and evaluation is a crucial step in providing patients with effective diagnoses and treatment while in clinical care. The variety of batteries used in these evaluations can help clinicians better understand the nuanced declivities in a patient's cognitive, behavioral, or emotional functioning, consequently equipping clinicians with the insights to make intentional choices about a patient's care. Despite the knowledge these batteries can yield, some aspects of neuropsychological testing remain largely inaccessible to certain patient groups as a result of fundamental cultural, educational, or social differences. One such battery includes the Dot Counting Test (DCT), during which patients are required to count a series of dots on a page as rapidly and accurately as possible. As the battery progresses, the dots appear in clusters that are designed to be easily multiplied. This task evaluates a patient's cognitive functioning, attention, and level of effort exerted on the evaluation as a whole. However, there is evidence to suggest that certain social groups, particularly Latinx groups, may perform worse on this task as a result of cultural or educational differences, not reduced cognitive functioning or effort. As such, this battery fails to account for baseline differences among patient groups, thus creating questions surrounding the accuracy, generalizability, and value of its results. Accessibility and cultural sensitivity are critical considerations in the testing and treatment of marginalized groups, yet have been largely ignored in the literature and in clinical settings to date. Implications and improvements to applications are discussed.

Keywords : culture, latino, neuropsychological assessment, neuropsychology, accessibility

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