

Remote Assessment Equivalent to In-Person Visit for Cognitive and Academic Testing in Kids

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Abstract: Teletesting shows no difference as compared to traditional in-person evaluation for most cognitive and academic subtests in children.

There has been an increase in telehealth visits across multiple specialties since the start of the pandemic¹. Prior to the pandemic, children needing evaluation for cognitive delays were seen in person. During the pandemic, many children needed to complete testing via telehealth, also known as teletesting. Although studies² show telehealth is increasing as a method for providing cognitive therapies, psychologists were concerned that administering cognitive and academic evaluations via teletesting may not be valid since those tests were designed for in-person evaluations.

Researchers from Kennedy Krieger Institute and Johns Hopkins School of Medicine and Public Health studied whether the KTEA-3 and WISC-V tests yielded similar results when administered remotely via teletesting as compared to traditional in-person testing. In their study, published in the Journal of the International Neuropsychological Society, Jacobson and colleagues demonstrated no clinically significant differences in the results of the tests, regardless of delivery method. There were slight differences in two of the subsections: Math Concepts ($p < 0.01$) and Visual Puzzles ($p = 0.03$), but the magnitude of these differences were quite small. You can access the full study [here](#).

Cognitive and Academic Testing Scores by Assessment Method

	Assessment	In-Person (St Dev)	Telehealth (St Dev)
KTEA-3	Letters and Words	88.2 (16.4)	89.6 (16.3)
	Math Concepts	83.9 (15.5)	88.1 (18.0)
WISC-V	Similarities	9.2 (3.0)	9.1 (3.2)
	Matrix Reasoning	8.8 (3.3)	8.5 (3.4)
	Digit Span	7.9 (3.0)	8.4 (3.2)
	Vocabulary	9.1 (3.4)	9.4 (3.5)
	Visual Puzzles	9.2 (3.2)	10.1 (3.1)

"Cognitive and Academic Testing Scores by Assessment Method"
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Figure 1: Academic and cognitive test scores for children delivered in person or via teletesting. The KTEA-3 academic test examines academic skills while the WISC-V test examines cognitive skills.

Studies such as this can facilitate better understanding of care delivery options to expand care accessibility without detrimental effects to patient outcomes. As pointed out by the authors, "Teletesting has critical implications for reducing longstanding barriers related to distance/transportation and subsequent disparities in care."

References

1. 1. Fox, B., & Sizemore, J. O. (2020, June 12). As office visits fall, telehealth takes hold. EHRN.org. Retrieved July 28, 2021 from <https://ehrn.org/articles/as-office-visits-fall-telehealth-takes-hold>
2. 2. Trinkl, J., & Rio, A. M. d. (2020, Aug 19). Effect of covid-19 pandemic on visit patterns for anxiety and depression. Retrieved July 28, 2021 from <https://ehrn.org/articles/effect-of-covid-19-pandemic-on-visit-patterns-for-anxiety-and-depression>