

TELE-ASD-PEDS: A Remote Approach to Autism Spectrum Disorder Evaluation

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Background:

Early identification of autism spectrum disorder (ASD) is critical for timely intervention, yet access to diagnostic services remains limited, particularly in rural and underserved areas. Telehealth-based tools such as the TELE-ASD-PEDS (TAP) offer a promising alternative to traditional in-person assessments.

Methods:

This preliminary study examined the agreement between TAP and in-person diagnostic measures, including the Autism Diagnostic Observation Schedule, Second Edition (ADOS-2), and clinician (CDD) diagnostic impressions, in a sample of 21 children aged 18–47 months. Diagnostic outcomes and clinician certainty were compared across methods, and Fisher's exact test was used to evaluate the relationship between diagnostic method and outcome.

Results:

Results indicated similar ASD diagnosis rates across methods (57%–67%), with high agreement between TAP and ADOS (86%) and the highest agreement between ADOS and CDD practitioners (95%), while agreement between TAP practitioners and CDD practitioners was lower (71%). No significant association was found between diagnostic method and outcome ($p = 0.73$), suggesting comparable performance across modalities. Clinician certainty was high overall (95%), with uncertainty primarily occurring in cases near diagnostic cutoffs. Some discrepancies were observed, with TAP identifying ASD in cases where ADOS did not.

Conclusions:

These findings suggest that TAP is a reliable and efficient telehealth tool that produces outcomes comparable to in-person assessments, particularly for clear ASD presentations, though supplemental evaluation may be needed for more complex or borderline cases. Further research with larger and more diverse samples is warranted to establish diagnostic accuracy and broader applicability.

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