

A Comprehensive, Personalized, Medically Based Care Model Improves Adaptive Behavior Outcomes in Autism vs Standard of Care

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Introduction

- This study examined the effects of treatment at Cortica on adaptive behaviors in children with Autism Spectrum Disorder (ASD). Currently, the standard of care for adaptive behavior deficits in ASD is Applied Behavior Analysis (ABA).
- The Cortica model involves a comprehensive program including ABA in addition to multidisciplinary developmental therapies, overseen by a neurodevelopmental physician.
- We analyzed longitudinal change in the Vineland Adaptive Behavior Scales over the course of Cortica care compared to standard ASD care received by children included in the National Database of Autism Research (NDAR).

Methods

Children with an ASD diagnosis (Cortica N=807, NDAR N=103) were assessed up to 7 times between the ages of 2-12 years. We constructed multilevel models to characterize growth curves within each adaptive behavior domain (composite score, communication, socialization, and daily living skills). We included a time X cohort interaction term to compare relative rates of growth in the Cortica sample versus the NDAR sample.

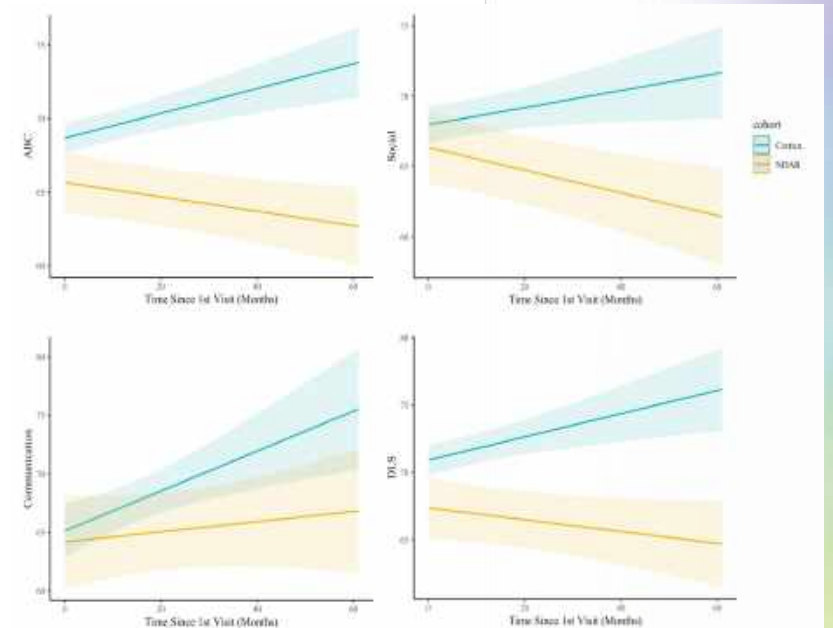
Results

Multilevel growth curve models showed significant Cohort x Time interactions for the Adaptive Behavior Composite score and all subscale scores.

Predictors	ABC	Socialization	Communication	Daily Living Score
(Intercept)	0.10 (0.05)***	0.08 (0.05)***	-0.03 (0.05)***	0.11 (0.05)***
Time (mean-centered)	0.08 (0.02)***	0.10 (0.02)*	0.04 (0.02)^	0.11 (0.02)**
Cohort	-0.51 (0.10)***	-0.36 (0.10)*	-0.20 (0.11)^	-0.53 (0.10)***
Age	-0.05 (0.03)	-0.15 (0.03)***	-0.01 (0.01)	-0.05 (0.02)
Time X Cohort	-0.13 (0.02)***	-0.07 (0.03)**	-0.12 (0.02)**	-0.13 (0.03)**

Table 1. Multilevel models. Note. Standardized Beta (Standard Error); * p<0.05 ** p<0.01 *** p<0.001

Results



Conclusions

Children with ASD receiving care at Cortica resulted in improved adaptive behavior development compared to a reference cohort of children receiving typical care.