

# MATURATIONAL DELAY IN ADHD: EVIDENCE USING MOXO d-CPT TEST

Berger, I., Slobodin, O., Aboud, M., Cassuto, H (2013). *Frontiers in Human Neuroscience*, 7, 691.

## SYNOPSIS

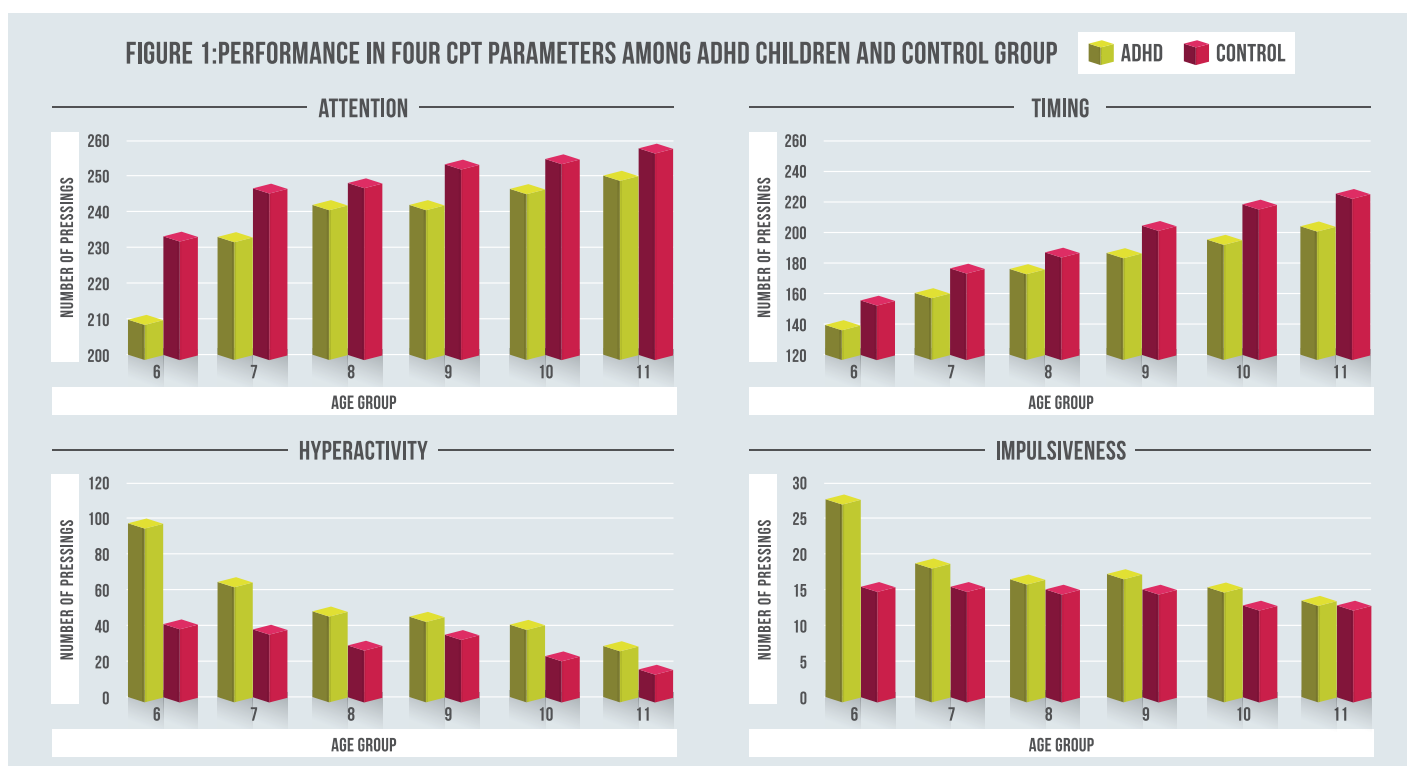
This study demonstrates that children with ADHD show a significant and consistent developmental lag, in CPT performance (MOXO d-CPT), when compared to normal controls, a lag that is shown to be between 1-3 years.

## STUDY SUMMARY

- Population: 924 children (6-11 years old). Out of which; 559 ADHD positive, 365 controls.
- Groups: 6 age categories (6-11) with similar age and gender distribution.
- Measures:
  - Parents and teachers form of Conner's ADHD/DSM IV scales.
  - MOXO d-CPT - Performance was compared on four indices of the test: Attention, Timing, Hyperactivity and Impulsiveness. The researchers mention that one of the reasons for choosing MOXO d-CPT is its unique distractor system simulating every-day environment of children.

## RESULTS

- In all age groups children with ADHD received significantly lower scores in the Attention and Timing parameters than normal controls. For these two indices both groups show better results as the years progress but the performance of ADHD children consistently matched that of younger controls.
- In the age groups of 6,7, and 10 ADHD children produced significantly more hyperactive and impulsive responses as compared to normal controls, and here too their results matched those of 1-3 younger controls.
- See Figure 1 (below) for additional information.



## DISCUSSION

- Both ADHD Children and controls show a similar developmental pattern but on a different time-scale. In most of the MOXO d-CPT indices performance of ADHD children was delayed and matched that of 1-3 younger controls. These results match findings reported in earlier clinical studies.
- The use of MOXO d-CPT for this study allowed for the objective, non-reporter bias approach of this study, coupled with an increased complexity of the task through the use of MOXO d-CPT environmental distractors set.