Objective: Post-error slowing (PES) is a cognitive mechanism for adaptive responses to reduce the probability of error in subsequent trials after error. To date, no meta-analytic summary of individual studies has been conducted to assess whether ADHD patients differ from controls in PES.

Method: We identified 15 relevant publications, reporting 26 pairs of comparisons (ADHD, n = 1,053; healthy control, n = 614). Random-effect meta-analysis was used to determine the statistical effect size (ES) for PES.

Results: PES was diminished in the ADHD group as compared with controls, with an ES in the medium range (Cohen’s d = 0.42). Significant group difference was observed in relation to the inter-stimulus interval (ISI): While healthy participants slowed down after an error during long (3,500 ms) compared with short ISIs (1,500 ms), ADHD participants sustained or even increased their speed.

Conclusion: The pronounced group difference suggests that PES may be considered as a behavioral indicator for differentiating ADHD patients from healthy participants.