

Neuropsychological outcome in adolescents/young adults with childhood ADHD: profiles of persisters, remitters and controls

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Background: This study examined neuropsychological functioning in a longitudinal sample of adolescents/young adults with attention deficit/hyperactivity disorder (ADHD) and controls as a function of the persistence of ADHD. We hypothesized that measures of executive processes would parallel adolescent clinical status, with ADHD-persisters, but not remitters, differing significantly from controls. In contrast, persisters and remitters were hypothesized to perform similarly, and different from controls, on tasks requiring less effortful processing. **Methods:** Ninety-eight participants diagnosed with ADHD in childhood were reevaluated approximately 10 years later. Eighty-five never-ADHD controls similar in age, IQ, and sex distribution served as a comparison group. Participants were administered a psychiatric interview and neuropsychological test battery. **Results:** Those with childhood ADHD demonstrated broad neuropsychological deficits relative to controls. When the group with childhood ADHD was subdivided based on adolescent ADHD status, compared to controls, both persisters and remitters showed deficient perceptual sensitivity and response variability, and increased ankle movements recorded by a solid-state actigraph. Only persisters differed from controls on several measures of more effortful executive processes. **Conclusions:** Findings provide preliminary support to the hypothesis that ADHD is associated with early-appearing and enduring subcortical dysfunction, while recovery over the course of development is associated with improvements in executive control functions. **Keywords:** Activity level, ADD/ADHD, adolescence, executive function, longitudinal studies, neuropsychology.