Pediatric loss of control eating syndrome: Association with attention-deficit/hyperactivity disorder and impulsivity

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Objective
Despite data linking Attention-deficit/Hyperactivity Disorder (ADHD) and adult binge eating, there are limited data in children with loss of control (LOC) eating. We examined inhibitory control in children with LOC eating syndrome (LOC-ES) and its association with ADHD.

Method
79 children (8–14 years) over the fifth weight percentile were recruited, irrespective of LOC eating or ADHD status. The Eating Disorder Examination for Children and the Standard Pediatric Eating Episode Interview assessed LOC-ES. ADHD diagnosis was determined by the Schedule for Affective Disorders and Schizophrenia for children and Conners-3 (Parent Report) DSM-IV Scales of Inattention and/or Hyperactivity (T score>65). The Go/No-Go (GNG) Task and the Behavior Regulation Inventory of Executive Function (BRIEF) assessed impulse control.

Results
Odds of LOC-ES were increased 12 times for children with ADHD (adjusted odds ratio [aOR] = 12.68, 95% confidence interval [CI] = 3.11, 51.64, p < 0.001), after adjusting for BMI z scores and relevant covariates. Children had 1.17 times higher odds of reporting LOC-ES with every 5% increase in GNG Commission Rate (aOR = 1.17, CI = 1.01, 1.36, p < 0.05) and 1.25 times higher odds of reporting LOC-ES with every 5 unit T-score increase in BRIEF Inhibit Scale (aOR = 1.25, CI = 1.04, 1.50, p < 0.05).

Discussion
Children with ADHD had significantly greater odds of LOC-ES compared to children without ADHD. Children with LOC-ES had significantly greater impulse control deficits on performance-based neuropsychological assessments and on parent reports than children without LOC-ES. These findings suggest a need to investigate possible shared mechanisms such as impulse control deficits, among children with LOC-ES and ADHD.