Is there an association between eating behaviour and attention-deficit/hyperactivity disorder symptoms in preschool children?

Vasiliki Leventakou, Nadia Micali, Vaggelis Georgiou, Katerina Sarri, Katerina Koutra, Stella Koinaki, Maria Vasilaki, Manolis Kogevinas and Leda Chatzi

Journal of Child Psychology and Psychiatry
DOI: 10.1111/jcpp.12504

Background
There is some evidence that aberrant eating behaviours and obesity co-occur with attention-deficit/hyperactivity disorder (ADHD) symptoms. The present study is the first that aims to investigate the association between eating behaviours and ADHD symptoms in early childhood in a population-based cohort.

Methods
We included 471 preschool children from the Rhea mother–child cohort in Crete, Greece. Parents completed the Children's Eating Behaviour Questionnaire to assess children's eating behaviour and the 36-item ADHD test (ADHDT) to evaluate ADHD symptoms at 4 years of age. Multivariable linear regression models were used to examine the association of eating behaviours with ADHD symptoms.

Results
Regarding children's food approach eating behaviours, we observed a positive association between food responsiveness and total ADHD index, as well as impulsivity, inattention and hyperactivity subscale, separately. Similarly, there was a significant positive association between emotional overeating and ADHD symptoms. With regard to children's food avoidant behaviours, food fussiness was found to be significantly associated with the impulsivity subscale. A dose–response association between the food approach behaviours and ADHD symptoms was also observed. Children on the medium and highest tertile of the food responsiveness subscale had increased scores on the ADHD total scale, as compared to those on the lowest tertile. As regards emotional overeating, children in the highest tertile of the scale had higher scores on ADHD total and hyperactivity.

Conclusions
Our findings provide evidence that food approach eating behaviours such as food responsiveness and emotional overeating are associated with the increased ADHD symptoms in preschool children. Future studies to better understand this overlap will enhance potential interventions.