

Addictive-like eating behaviours, mental ill-health and substance use in 6,640 early adolescents.

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Introduction and Aims:

Research suggests that highly palatable foods can have addictive properties and, for some, can elicit "addictive eating" behaviours. In adults and clinical samples, addictive eating commonly co-occurs with mental and/or substance use disorders, yet little is known about the prevalence and associations of addictive eating in general population adolescents. This study aims to fill these gaps to inform nutrition, mental health, and substance use prevention.

Design and Methods:

6,640 Australian students ($M_{\text{age}} 12.7 \pm 0.5$, 49%F) completed the "Health4Life" baseline questionnaire. Addictive eating was measured using the Child Yale Food Addiction Scale, which adapts DSM substance use disorder criteria to assess 7 food addiction symptom criteria and one impairment criterion. Using negative-binomial modelling adjusting for gender and affluence, associations between symptom count, probable serious mental illness ("SMI" [K6]), energy drink consumption, sugar-sweetened beverage consumption, alcohol use, and smoking were examined.

Results: The mean symptom count was 1.36 ± 1.47 . 18.3% of participants met 3+ symptoms, 7.5% endorsed impairment, and 5.3% met the diagnostic threshold for food addiction. After adjusting for gender and affluence, SMI was associated with greater addictive eating symptoms ($\beta = 0.65 [0.58-0.72]$, $p < 0.001$), as was high energy drink consumption ($\beta = 0.51 [0.41-0.60]$, $p < 0.001$), high sugar-sweetened beverage consumption ($\beta = 0.84 [0.67-1.01]$, $p < 0.001$), standard alcoholic drink consumption in prior 6 months ($\beta = 0.48 [0.33-0.64]$, $p < 0.001$), and tobacco smoking in prior 6 months ($\beta = 0.52 [0.32-0.73]$, $p < 0.001$). All behaviours remained significant in a multivariable model.

Discussions and Conclusions: In this large adolescent sample, addictive eating symptoms were common and strongly associated with alcohol use, smoking, sugary/caffeinated beverage consumption, and mental ill-health. Longitudinal research is needed to examine directionality.

Implications for Policy/ Practice: Identifying and addressing addictive eating behaviours in early adolescence should be a priority within nutrition and mental health initiatives in schools. The strong associations with alcohol use and smoking are of note and may represent an opportunity to identify individuals at risk of later substance misuse.

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