Attention-deficit hyperactivity disorder is associated with disordered eating among adolescents

Chen Namimi-Halevi[1], Chen Dor[1], Rita Dichtiar[1], Michal Bromberg[1,2], Tali Sinai[1,3]

[1]Israel Center for Disease Control, Israel Ministry of Health, [2] Sackler Faculty of Medicine, Tel Aviv University, [3]School of Nutritional Sciences, The Hebrew University of Jerusalem, Israel.

Introduction

Rates of disordered eating (DE) perceptions and behaviors are increasing globally, particularly among adolescents. Growing evidence indicates that DE is more prevalent among adolescents with attention-deficit hyperactivity disorder (ADHD). However, this association has not yet been tested using the widely-used **S**ick, **C**ontrol, **O**ne, **F**at, **F**ood (SCOFF) questionnaire, nor studied in Israel.

This study examines this possible association in a nationally representative sample of Israeli adolescents.

Methods

Participants in the Israeli Youth Health and Nutrition Survey (2015-2016), a cross-sectional, school-based study, completed self-administered questionnaires, including the SCOFF questionnaire, and underwent anthropometric measurements. An affirmative reply to at least two SCOFF items was considered a DE case. Multivariable logistic regression evaluated the ADHD-DE association and the associations between ADHD and individual SCOFF items, controlling for age, sex, socioeconomic status, and body mass index z-score.

Results

Of 4616 participants (12-18 years, 50.2% male), 654 reported an ADHD diagnosis. DE prevalence among ADHD adolescents was significantly higher than the non-ADHD group (50.2% vs. 43.9%, p = 0.003).

Controlling for potential covariates, the association between ADHD and DE remained significant (OR 1.409; 95% CI: 1.170-1.697), as did associations between ADHD and three SCOFF items. No difference in DE prevalence was found between stimulant-treated (n = 287) and untreated (n = 326) adolescents with ADHD.

Conclusion

Adolescents with ADHD are more likely to experience DE. Medical professionals should incorporate routine screening for DE in adolescents with ADHD, while families should be educated on healthy eating habits and encouraged to engage in preventive practices such as family meals. Recognizing and addressing ADHD symptoms may improve both DE behaviors and related health outcomes.

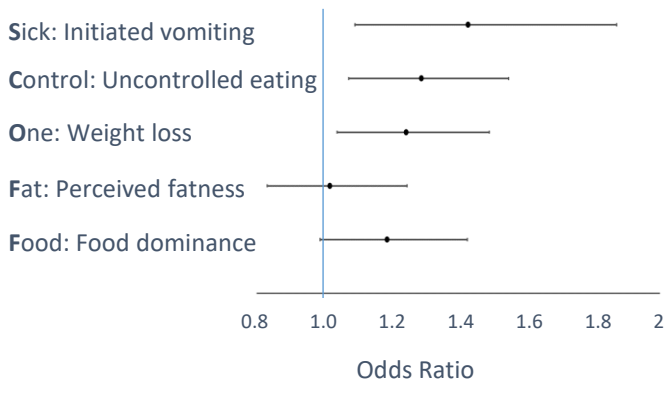
Further studies are needed in order to determine causality.

Demographics, anthropometrics, and disordered eating behaviors of participants

	ADHD (N=752)	Non-ADHD (N=3864)	P-value
Age, years	15.4 ± 1.6	15.2 ± 1.6	0.002
Male sex, %	404 (54.1)	1815 (49.3)	<.001
Low socioeconomic status, %	270 (35.7)	1566 (38.6)	0.018
Body mass index z-score	0.43 ± 1.2	0.44 ± 1.12	0.53
Initiated vomiting*, %	89 (12.9)	339 (10.1)	0.016
Uncontrolled eating*,%	308 (41.7)	1434 (37.5)	0.049
Weight loss*, %	338 (45.3)	1546 (39.7)	0.012
Perceived fatness*, %	197 (25.8)	1048 (26.8)	0.58
Food dominance*, %	251 (34.1)	1127 (29.5)	0.026

Note: Calculated with the application of sample weights of the Survey. Data are mean ± SD or n (%).
*SCOFF items

Associations between ADHD and each SCOFF item [Multivariable models*]



Note: Data are OR and 95% CI.
*Models were adjusted for age, sex, socioeconomic status, and body mass index z-score.