Emotion Self-Regulation Moderates the Association Between Symptoms of ADHD and Weight Loss After Bariatric Surgery

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Abstract

Background
This study aimed to examine the combined effect of pre-surgical emotion self-regulation (ESR) and symptoms of attention deficit hyperactivity disorder (sADHD, i.e., inattention, impulsivity, and hyperactivity) on weight loss 12 months following bariatric surgery independent of psychological distress and eating pathology.

Methods
Adults with obesity were recruited from a bariatric surgery specialty clinic in Canada. Patients completed measures of psychological distress (i.e., Beck Depression Inventory II and Beck Anxiety Inventory), eating pathology (i.e., Eating Disorder Examination Questionnaire), ESR (i.e., “Managing Own Emotions” subscale of the Schutte Emotional Intelligence Test), and sADHD (i.e., Adult ADHD Self-Report Scale) prior to surgery. Measures of height and weight were obtained and used to calculate percent excess weight loss (%EWL) of body mass index (BMI) pre- and 12 months post-surgery.

Results
Thirty-seven patients were recruited. The final sample consisted of 30 patients (80% female; mean age = 48 years; mean BMI = 49.32). Patients experienced significant weight loss and reported significant improvement in anxiety, depressed mood, and eating pathology from pre- to 12 months post-surgery. A significant sADHD by ESR interaction on %EWL (F(1, 21) = 6.43, p = .019) was observed and accounted for 13% of unique variance after adjusting for relevant covariates. Probing the interaction with the Johnson-Neyman technique indicated that there was a significant inverse association between sADHD and %EWL among individuals who scored ≤ 0.15 SD below the mean on ESR.

Conclusions
ESR moderated the association between sADHD and %EWL, suggesting that sADHD may attenuate weight loss following bariatric surgery among individuals deficient in ESR. This finding has implications for bariatric surgery pre-surgical psychological assessment.