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## DOES COMORBID PSYCHIATRIC DISORDER ARGUE FOR OR AGAINST SURGICAL TREATMENT OF OBESITY?

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In this issue of the journal, Mühlans and colleagues describe high rates of mood, anxiety, and eating disorders in a sample of patients awaiting bariatric surgery for severe obesity. Nearly one third met criteria for a current mood disorder; one fifth had a current anxiety disorder, and over half had at least one current psychiatric diagnosis. Elevated rates of mood and anxiety disorders in patients awaiting bariatric surgery are certainly not surprising. As Mühlans et al describe, community surveys consistently find an association between obesity and common mental disorders, and most find that this association grows stronger with increasing body mass index (BMI). Given the mean BMI of nearly 50 in this sample, a 30% rate of current mood disorder is consistent with data from community surveys.

While the association between obesity and mood or anxiety disorders is well established, the significance of this association requires closer examination. How clinicians respond to high rates of psychiatric disorder in bariatric surgery patients would seem to depend on two questions: First, what do depression and other psychiatric disorders predict for the outcome of obesity surgery? Second, what is the outcome of depression or other psychiatric disorder following obesity surgery?

Regarding the first question, psychiatric disorder or psychological distress prior to surgery does not consistently predict poorer weight loss outcomes from bariatric surgery. Multiple psychiatric diagnoses prior to surgery may predict poorer outcomes (1), but pre-operative depressive symptoms or depressive disorder do not appear to predict less postoperative weight loss (2,3). Studies of eating disorders have shown mixed results, with five studies showing no effect of binge eating, two showing a smaller amount of weight loss in binge eaters, and three studies showing a greater amount of weight loss among binge eaters (4).

Regarding the second question, weight loss following bariatric surgery is consistently associated with improvement in measures of depression, anxiety, and eating disorder. Follow-up studies consistently find decreases in mean levels of depressive symptoms and decreases in prevalence of clinically significant depression (5–7). Improvement in depression appears to correlate with postoperative weight loss (5). A review of binge eating in the bariatric surgery population found a reduction in the prevalence of binge eating after bariatric surgery in all fifteen studies that examined post-surgical symptoms (4).

Psychiatric or psychological assessment prior to bariatric surgery is widely recommended; and the purpose of this assessment is usually described as identifying “psychosocial contraindications” to obesity surgery (8). Given the findings reviewed above, we might reconsider the objective of pre-operative psychiatric evaluations in bariatric surgery patients.

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The available data certainly do not support using psychological distress, depression diagnosis, or eating disorder diagnosis as a criterion for denying or delaying surgical treatment of obesity. We can, however, identify two alternative reasons for pre-operative psychiatric assessment.

First, we might consider evaluation prior to bariatric surgery as an opportunity for screening or case-finding. Given the high prevalence of depressive and anxiety disorders among people with severe obesity, identifying and treating previously unrecognized psychiatric illness could have important benefits. It would not be rational, however, to argue that treatment of obesity should be deferred until depression or other psychiatric disorder has resolved. In fact, rates of recovery from depression following bariatric surgery rival or exceed success rates of our standard depression treatments. So we might recommend that treatment of depression accompany treatment of obesity, but evidence does not support a requirement that treatment of depression precede treatment of obesity.

Second, we might consider identification of psychiatric disorder (especially depression) as arguing for – rather than against – a recommendation for bariatric surgery. Obesity-related comorbid conditions (such as diabetes or sleep apnea) are often cited as indications for more aggressive obesity treatment. Consensus guidelines developed by the National Heart, Lung, and Blood Institute (NHLBI) recommend consideration of bariatric surgery for patients with BMI of 40 or greater, but reduce this BMI threshold to 35 for those with significant comorbidities likely to improve with significant weight loss (9). The NHLBI guidelines specifically mention “patients with high-risk comorbid conditions (cardiovascular, sleep apnea, uncontrolled type 2 diabetes) or weight-induced physical problems interfering with performance of daily life activities.” Given the significant functional impairment associated with depression and the consistent evidence that depression improves following bariatric surgery, depression would certainly seem to belong on this list of comorbid conditions that would lower the threshold for surgical treatment of obesity.

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