

## Do psychological and behavioral factors influence weight changes before bariatric surgery?

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**Background:** Obesity is associated with psychological stress and problematic eating behaviours. However, there is inconsistent evidence about the impact of preoperative psychological and behavioral factors on weight outcomes in bariatric patients. This study evaluated whether depression and eating behaviors were associated with presurgical weight (absolute weight [Kg]; body mass index [BMI]) and weight changes; and whether depression correlated with eating behaviors, in candidates for bariatric surgery.

**Methods:** 208 patients undergoing bariatric surgery (76% women; M[SD] age=45[12] yrs; M[SD] BMI=50[10] kg/m<sup>2</sup>) were recruited for participation in the REBORN (REsearch on Bariatric care for Obesity tReatmeNt) cohort study. Patients underwent a medical interview, had their weight and height measured, and completed the Beck Depression Inventory (BDI-II) and the Dutch Eating Behavior Questionnaire (DEBQ) on the day of their 6-month preoperative visit. Anthropometric measures were also obtained on the day of the surgery. General linear models were performed, adjusting for age and sex.

**Results:** Neither BDI-II nor DEBQ were associated with weight and BMI change (presurgery – surgery;  $p$ 's >.05) at 6-months presurgery. However, there was a trend for an association between DEBQ external eating and BMI ( $\beta$ =-1.86,  $p$ =.10). Moreover, increased severity of depressive symptoms were associated with increased levels of emotional eating ( $\beta$ =.04,  $p$ <.001) and external eating ( $\beta$ =.01,  $p$ =.07).

**Conclusion:** Findings suggest that depressive status and eating behaviours do not significantly impact pre-bariatric surgery weight or weight changes. However, patients with higher depressive symptoms had a greater tendency to eat in response to negative emotions and food related stimuli. This suggests that depression may increase problematic eating behaviours in bariatric patients and, in turn, may have negative implications for postoperative outcomes.

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